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REPORT

OF THE

DIRECTOR-GENERAL OF FORESTS

FOR THE YEAR ENDED

31 March 1982

Presented to the House of Representatives Pursuant to Section 68 of the Forests Act 1949

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Minister of Forests

I have the honour to present my report for the year ended 31 March 1982.

G. M. O'NEILL, Director-General of Forests.

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1. FOREST POLICY AND HIGHLIGHTS

NEW ZEALAND FORESTRY CONFERENCE

The second session of the 1981 New Zealand Forestry Conference was held at Parliament Buildings in September. Both forest development and processing options for exotic forests were discussed. Targets for future planting proposed by the Afforestation Working Party were endorsed by the Forestry Council. They have not yet been considered by Government but envisage completion of the second planting boom, launched in the 1960s, by the end of the 1980s.

The desirability of treating forestry and farming as integrated rather than competitive land uses was strongly stressed and sympathetically received at least within the sector. Radiata pine was confirmed as the key species in most plantings but with endorsement of Forest Service policy for planting special purpose species. A general aim of encouraging a greater contribution in planting from small growers was supported by recommendations aimed at less restrictive lending and taxation provisions.

In forest research an annual growth of 6 to 9 percent was recommended with a greater increased private sector contribution.

Much work was done on comparing options for processing future wood supplies and the advantage of considering growing forests, for solid and reconstituted wood processing as an entity was reaffirmed.

MANAGEMENT REVIEW

A New Zealand Forest Service Review Committee chaired by Mr D. C. Kirkpatrick reported to the Minister of State Services and Minister of Forests on 30 September 1981. The five-man committee received 168 written submissions, visited forests in both islands and spoke with a wide range of forest companies as well as those wishing to present their submissions.

The committee concluded that a single organisation should continue to be responsible for administering all State forest land and for providing related services to other land holders in such functions as wild animal control, fire protection and disease control and eradication. It did not favour outright sale of State forest lands to private interests and saw the State exotic forest holdings as, in effect, a "bank" which could be drawn on by new processors as well as established industry. New planting by the State in furtherance of the general sector targets, as proposed by the 1981 Forestry Conference, was supported.

The committee did not support the separation of the Forest Service sawmills and in fact recognised that they had a specific role in demonstrating the potential of the State's management strategy for exotic forests in producing high value solid wood products from tended crops.

In general the committee's findings strongly endorse the broader view of forestry implicit in the balanced use of forested lands and the public interest in maintaining a strong, complete, and co-ordinated State presence in the forestry sector. The recommended administration to give effect to its recommendations was a New Zealand Forestry Commission with both external and staff representation. At the year's end the details of

a desirable administrative framework were still under discussion by Government. Irrespective of the final outcome, the Review Committee's report is an important step in defining the future shape of the forestry sector in New Zealand.

FINANCIAL REVIEW

In last year's report reference was made to a financial review designed to overcome inadequacies in financial management. This review has proceeded in concert with the management review and other departmental reviews.

During the year a unified accounting and management reporting system has been developed with an integrated code structure designed to classify transactions for costing (job control), management accounting, and improved financial reporting. The first stage of this system will be implemented in the 1982–83 financial year.

Recent amendments to the Fifth Schedule of the Public Finance Act 1977 will enable the department to operate a revolving fund. Internal budgetary and associated systems are being reviewed with the aim of introducing a revolving fund from 1 April 1983. In the meantime, Treasury has agreed to relax item controls to enable a major constraint identified by the Public Expenditure Committee in its 1980 report to be overcome.

The form and content of the Forest Service estimates and financial statements are being reviewed with the objective of improving the information provided and including appropriate identification of costs and revenues associated with income earning activities. The new form of financial statements is included in Appendix 8 of this report and the revised estimates format will be introduced for the 1983–84 financial year in conjunction with the introduction of revolving funds.

Detailed investigations have been undertaken into the feasibility of introducing a comprehensive and integrated Forest Service EDP system as a basis for developing effective financial management and other departmental management information systems.

MARKETING POLICY FOR THE SALE OF STATE EXOTIC WOOD

In recent years the marketing policy for the sale of State exotic wood has been based on the 1972 Stumpages Working Party Report. During the 1981 Forestry Conference on exotic forests a working party was set up under the auspices of the Forestry Council to examine the Forest Service marketing policy and recommend any changes considered desirable. The working party carried out a most comprehensive investigation into the principles and implementation of the Government's policy for the sale and marketing of State exotic wood, and their findings were reported to the 1981 Forestry Conference and subsequently submitted by the Forestry Council, with other recommendations, to the Minister of Forests. Some important changes were suggested but the basic principle that the market place should continue to set the price for State exotic wood was reaffirmed.

Last December ministerial approval was obtained to the resultant new policy for the sale of wood from State exotic forests. This became effective from 1 January 1982 and is based on the principles recommended by the Forestry Council but with one exception. The council's recommendation

relating to arbitration, although not approved, was not formally rejected and is to be given further consideration as it involves amending legislation.

A major recommendation approved was that the maximum term for the sale of State exotic wood should be for 20 years with no right of renewal. A further recommendation was that the term of sale should have regard to the extent of any new investment required to process the wood under offer. In addition, State exotic wood will be available to those involved in wood processing and not necessarily sawmillers only.

In relation to price reviews, it was agreed to set up a technical subcommittee under the auspices of the Forestry Council to investigate the concept of product price indices and their application for annual stumpage adjustment purposes. As an interim arrangement the Consumer Price Index (all groups) will be applied to the whole of stumpage. In long-term sales, market-related five-yearly reviews will continue to be applied.

Other recommendations of specific interest were that in assessing the resources of wood available for any major project, allowance should be made for the continuation of short-term sales at the existing level of supply. In approving the recommendations to the Forestry Council, it was made clear that long-term sales of 5 to 20 years were not to be confined to large-scale industries but would also be available to small- and medium-sized industries.

OVERSEAS TRADE

A Japanese restriction on the use of radiata pine in building has been lifted. In December, amendments were made to the Japanese Standard which eliminate the ring width restriction, and replace it with limitations on occurrence of pith and corewood. These limitations are a much more suitable and realistic grading system for New Zealand radiata pine.

Under the old (ring width) restriction, over 80 percent of New Zealand radiata pine framing timber was unacceptable for building applications in Japan. The amendments remove a major obstacle to the development of New Zealand's timber trade with Japan, and will give greater credibility to marketing programmes aimed at increasing the preparation and amount of radiata pine going into building applications.

2. PRODUCTION FORESTRY

EXOTIC FOREST MANAGEMENT POLICY FOR STATE FORESTS

At the second session of the 1981 New Zealand Forestry Conference a draft statement of exotic forest management policy for State forests was introduced for discussion. This draft policy was seen to be a means of drawing together recommendations from a number of the working parties of the Conference in order to guide the further management and development of State plantations, and as a first step towards a policy for the forestry sector as a whole. The draft was also designed to place exotic forests within the context of the "balanced-use" principle of forest land management, noting that, while objectives for plantations are primarily related to commercial profitability, other principles of conservation of soil and water, protection of biological values, and recreation opportunities also needed to be taken into account.

The basis for the policy as a whole is contained in the following extract from the draft:

"The role of plantation forests in land use, employment, and regional development, the proven value of New Zealand wood products on world markets, and the valuable and growing contribution of forests and forest industries to the country's economy, are of vital importance to New Zealand. Accordingly, the maintenance and development of economic and healthy forests, the fostering of efficient and competitive forest industries, and the growth of profitable overseas marketing of forest products are the fundamental objectives for New Zealand's forest development, and for the management of State plantations as a part of that development."

The draft policy draws upon the work of the Afforestation Working Party of the conference in setting a State planting target within an overall sector objective of 43 000 hectares annually of new planting for the 1981–85 period. State plantations are seen to be required to be managed to obtain the highest long-term, economic return possible, within any constraints imposed by the use of forests to meet other national goals, such as generating full employment and regional development.

Management of forests towards these objectives, will require silvicultural regimes incorporating early thinnings to low final crop stockings and pruning to minimise branch size defects in order to provide a maximum value crop. To ensure that the investment in tending is realised, the policy requires that logs of different quality be assessed, evaluated and, if necessary allocated separately, suggesting a greater trend towards log sorting prior to uplift. This would be facilitated by more control being exerted by the Forest Service itself on harvesting through departmental logging where this is considered necessary to meet commercial objectives.

The draft policy incorporates recommendations related to the marketing and sale of State forest wood, the State's role in utilisation and industry development, sector planning, education, training, employment, and research. It is envisaged that the draft policy will be developed in concert with the preparation of aims and objectives of the department.

RADIATA PINE TASK FORCE

A multi-disciplinary team set up two years ago to bring together information on the growing and processing of radiata pine, reported on its work at a symposium in February. Valuable assistance was given to the team by the industry, including the provision of a $100,000 interactive computer.

The major part of the work of the task force was the building of a computer-based silvicultural stand model. The model literally grows a radiata pine stand, from planting to maturity and takes into account the site and the important aspects of quality for any rotation. The model "harvests" and "transports" logs to a sawmill where the logs are "sawn" to a range of timber sizes. For each set of assumptions the computer provides estimates of all yields by major items, as well as costs and returns from a discounted cash flow analysis. Accordingly, the model will provide estimates for almost the entire range of silvicultural regimes of radiata pine on New Zealand sites, and for a range of sawing options.

The model will go a long way in assisting forest managers in making better silvicultural decisions, assisting industry in making better processing decisions and helping planners develop a forest strategy.

PUHIPUHI NEEDLE CAST DISEASE

Following three months of unusually warm, humid weather a disorder of radiata pine occurred in Puhipuhi in the autumn of 1981 and killed some 20 hectares of 20 year old trees and patches of younger trees. Under the Forest Disease Control Regulations an infected area was declared. Older trees were clearfelled and the merchantable material extracted where feasible and fumigated before milling. Younger areas were sprayed with fungicides on a monthly basis. Subsequently patches of infection were found, usually in gullies, through much of eastern and central Northland on too wide a scale to eradicate. The infected area designation was uplifted but a continuing watch is being kept to detect any further development. No new disease was isolated and it appears likely that the problem was caused by a normally saprophytic fungus becoming pathogenic due to the abnormal weather conditions.

The Puhipuhi outbreak highlights the need of maintaining continued vigilance to protect forests against the introduction of any harmful disease.

EXOTIC SPECIAL PURPOSE SPECIES POLICY

The Indigenous Forest Policy, announced in 1977, has meant a substantial decline in the level of production of indigenous timbers. It is imperative that the State give a lead in the development of alternative exotic resources, and a policy on exotic special-purpose species has therefore been defined.

Although radiata pine will continue to be the principal exotic forest species planted and managed in State forests, its timber properties are not well suited to some demanding end uses where higher standards in decorative features, dimensional stability, and surface hardness are required. Accordingly the special purpose species policy prescribes for the establishment of some 2000 hectares per annum of *Cupressus* and *Eucalyptus* species primarily, to meet projected domestic requirements for special end-uses such as furniture and cabinet work, turnery, handles, ladders, exterior joinery, and decorative veneer and plywood. The policy also prescribes for further sawing, drying, grading, peeling, and veneering end-use studies as suitable New Zealand-grown material becomes available, to define more precisely silvicultural and utilisation requirements.

WORK PROGRAMME IN STATE FORESTS

The following operations were carried out in State exotic forests in 1981–82. All figures are provisional.

	Forest Service (Basic Programme) (hectares)	*Temporary Employment Programme (hectares)*	*Total (hectares)*
New planting	17 171	4 412 (20%)	21 583
Restocking	8 849	245 (3%)	9 094
Pruning	51 645	718 (1%)	52 363
Thinning (to waste)	32 829	111	32 940
Clearfelling	7 293	–	7 293

ROUNDWOOD WORKSHOP

Traditional sources of raw material for the roundwood industry are in future likely to be limited because supplies from some suitable species, particularly Corsican pine, will soon be depleted. Furthermore, current sawlog regimes for radiata pine are unlikely to produce the full range of product types desired for roundwood uses, poles in particular. Accordingly, measures are needed to ensure that demand is satisfied and a management strategy, within the principal management objectives of acceptable long-term economic returns from forests, is the first step.

With this in mind, a three-day workshop held in March, attended by representatives of the industry, the users, and departmental officers, discussed issues relating to the growing of roundwood. Other matters considered were technical aspects of roundwood specifications, current and potential domestic user requirements, and potential markets.

A draft State forest policy on roundwood was prepared during the final session of the workshop. After further discussion with interested parties this policy will be finalised, and will provide direction for the management of areas in some State forests for the production of roundwood.

EXTENSION FORESTRY

The Forestry Conference emphasised the role of the private forest grower to ensure a continued expansion of the national forest estate. To this end, the removal of disincentives in current tax legislation, and a broadening of the financial incentives base, are seen to be necessary.

During the year 380 grants and nine loan applications covering a proposed planting area of some 9500 hectares, were approved. These approvals include 13 protection/production grants in respect of 200 hectares, mainly in the South Auckland and Gisborne/East Coast districts.

The planting of 7225 hectares and tending of 9041 hectares reflects an increase of 1508 and 833 hectares respectively on the previous year's performance under the incentive schemes. The continuation of these increases will see requirements for additional labour proceed into the future. Local authorities continue to display an interest in forestry as an avenue for employment and a means of future income.

Requests for information and advice from the public continue to place a strain on extension services. These activities are considered to be of equal importance to the administration of the incentive scheme and, therefore, unless there are changes in the administration of the scheme, there will be a need for more experienced staff to service the interests of the private grower.

FIRE CONTROL

The National Forest and Rural Fire Seminar, held in Nelson from 27–29 October 1981, was the first to be held in this country.

Over 90 delegates attended, representing counties and district councils, Federated Farmers, forest owners, rural fire district committees, Rural Fire Mediators, New Zealand Catchment Authorities, the Insurance Council of New Zealand, the New Zealand Fire Services, and the Ministry of Defence as well as the Forest Service. The objective was to have discussions on all problems in the fire control field as they affect rural fire authorities and those most affected by fire in the countryside. Papers were

given and discussions were held on topics such as legislation, rural firefighting, helicopter use, finance and insurance, etc. A final session approved a number of recommendations which are now being considered by relevant organisations.

Drought conditions prevailed for the second year in succession in certain parts of the country. Many troublesome fires occurred close to State forests and other State areas and were extinguished at some cost. There was no serious damage to forests. The biggest fires occurred in South Canterbury, Marlborough and Wairarapa, the Rotorua and Taupo regions, and Northland.

Four rural fire mediators were appointed and the Waiouru Defence Rural Fire District was formally gazetted on behalf of the Minister of Defence. Three major simulated fire exercises were held in Aupouri, Mohaka, and Pomahaka Forests.

For the first time fire control data is being stored on a computer system, which will make recovery of information and analysis more efficient. The Chief Fire Control Officer attended the Australian State Forest Fire Control Officers' Conference in Sydney and valuable information was obtained regarding the direction of fire research in Australia, particularly with regard to aerial firefighting systems. These appear to be the only way of stopping a major forest fire such as that experienced at Hira Forest last year.

3. FOREST PLANNING

MANAGEMENT PLANS

Draft regional plans for King Country and Buller, were published and regional plans for East Coast, Taupo, and Wairarapa/Wellington were approved during the year. Final versions of the plans for Whirinaki State Forest and Craigieburn Forest Park were also approved.

Draft plans for North and South Westland published in 1980 attracted nearly 5000 submissions, resulting in a revision of the management policy for these regions.

The decision by Government to transfer the State forests of South Okarito and southern Waikukupa to Westland National Park was itself a major factor influencing a change in management policy. Both forests had previously been included in the proposed allocation of future timber harvests. The availability of timber in South Westland will drop from 80 000 cubic metres to between 5000 to 10 000 cubic metres per annum over the period 1990–95 while production from plantations still to be established, and on very difficult country, will not come into production before 2010. The task of providing equivalent economic opportunities for the people of the region will not be easy.

THE 1981 NATIONAL FOREST SUPPLY MODEL

A revised forecast of forest production from all State and private forest holdings was studied by working parties of the 1981 Forestry Conference.

This 1981 model contains much greater detail than the previous supply forecast prepared in 1976, although the single forecast of yield was calculated on the same basis. The main alterations concerned assumptions about future planting rates and management regimes. These changes draw attention to the inadequacy of a supply forecast which assumes a single cutting strategy. Such a forecast is commonly accepted

without an appreciation of the wide range of supply schedules which can result when a number of feasible management options are modelled.

The future maintenance and publication of forest supply data is to be kept under review.

DEVELOPMENT PLANNING

The national forest supply model has been used as an input in two computer systems of relevance to regional development planning. The use of these systems provides an indication of the financial, manpower, and plant and equipment needs required for management and harvesting of the predicted regional wood supply. The systems also allow estimates to be obtained on transport requirements, and possible export volumes of processed products.

The programs were developed for a forestry development study of the Northland Planning District and have subsequently been used in the Central North Island Planning and Transport Study. They are relatively simple programs which simulate the consequences of a single development option over a period of 35 years.

Assistance was given during the year to Canterbury University which is developing a more complex modelling technique using computer optimising procedures. Such models are important in the evaluation of alternative sector strategies and for highlighting the information needs of development planning.

TOWN AND COUNTRY PLANNING

District Planning Schemes

The forestry sector's afforestation expansion has been given direction by the national and regional planting targets recommended by the Forestry Conference. The continuity of the current rate of planting for a further 10 years reflects the forest industry's confidence in its future, but the total 10 year target of 430 000 hectares represents only 1.5 percent of the land area of New Zealand and it is anticipated that 30–40 percent of the area planted will be in the form of woodlots and small plantations complementary to individual agricultural holdings.

The goals of afforestation are clearly defined, both nationally and regionally, yet forestry continues to be singled out in district schemes as a land use which must be constrained by statutory planning ordinances. Substantial effort by the Forest Service and the private forest owners' organisations has been put into opposing these constraints but this has been largely unsuccessful.

A recent Planning Tribunal decision upheld the imposition of conditional use on the grounds that it was reasonable to expect a forestry enterprise to demonstrate the physical and social impact of an afforestation project on established farmland.

This decision is viewed with concern as it is a serious disincentive to afforestation and introduces an additional element of risk to an enterprise which, by its long-term nature, requires a substantial degree of faith from investors.

Regional Planning

The Forest Service has been involved in the Central North Island Planning and Transport Study which was designed to identify the consequences of an increase in forestry production in the region with

specific relevance to the need for transport development and other infrastructural support.

The department's contribution has been to define in detail the current supply and demand, also the movement of raw materials and processed produce from forests to existing industrial plants and between existing plants and export ports or domestic demand centres. Development models are also being used to identify likely significant changes in the volume and pattern of processing and transport over the next 15 years.

So far the analysis has confirmed that, with the possible exception of Northland, no large scale additions to the number of existing plants is possible in the North Island until the mid-1990s.

The central North Island study has also focused on the desirability of extending the railway network and on the nature of the conflict between pastoral farming and forestry development in each of seven united council regions. The results of the study will contribute to the regional planning schemes of the seven united councils.

LANDSCAPE PLANNING

Activities have concentrated on advice and preparation of guidelines for improving the visual impact of forest operations and recreational amenities. To this end a publication, "Creative Forestry", has been published to serve as a manual for forest managers and contribute to a better understanding of forestry values in landscape planning generally.

TRADE WITH AUSTRALIA

Departmental officers attended the first Australia/New Zealand joint forest industry seminar which explored the possiblity for co-operative marketing in exporting forest products into third-world countries. It was attended by senior representatives of the timber industry in both countries and proved to be a useful complement to the NAFTA Joint Consultative Committee on Forest Industries meeting.

4. ENVIRONMENTAL FORESTRY

RECREATION POLICY

Several of the main elements of the recreation policy formulated and reported on last year have been incorporated in a draft policy for State exotic forestry. One major change envisaged is to liberalise public access to exotic forests on foot unless there are circumstances likely to result in risk to the users or to the forest itself.

BROADER ENVIRONMENT ISSUES

A senior officer of the division was heavily involved in both the OECD Review of Environmental Policies in New Zealand and the preparation of the proposal for a New Zealand Conservation Strategy.

The Forest Service has supported the OECD Review of Environmental Policies in New Zealand and in particular the emphasis on the need for improved mechanisms to provide better consultation between Government agencies. The department also agrees with the need for a more complete biological resource inventory to assist in assessing the need for reservation of representative areas in their natural state, but has doubts

on how this might be achieved in a short time without a major redeployment of resources.

The review recommends further investigation into protecting private indigenous forest, by Government purchase of development rights as provided for by conservation covenants under the Reserves Act and as applied in the United States. This is an area where combined study by relevant agencies may be worthwhile. A further possibility which could be explored is the provision of some incentives for indigenous forest management.

The department strongly supports the fundamental concept in the proposed New Zealand Conservation Strategy of integrating conservation and development. It is concerned at some misconceptions, errors, and unproven statements in the document relating to indigenous forestry.

SCHOOL OUTDOOR EDUCATION IN STATE FORESTS

The Forest Service has had a long and close association with school groups using State forests for educational purposes. A major concern has been to increase understanding and awareness of forest ecological processes and man's interaction with these. The Forest Service will continue this role but, in recognition of the future impact of major increases in exotic forest utilisation and processing in New Zealand, it is intended to promote better public awareness of the management and utility of our valuable exotic forest resources. Public open days have been well attended and obviously hold a popular appeal for the public.

Over the past few years a number of outdoor education centres have been established in or near State forests by a variety of organisations. While the department is sympathetic to this cause, the need for establishing additional centres is questionable. Consultation is under way with the Department of Education in an attempt to resolve this issue. There is concern that further diversion of personnel and financial resources to new activities may reduce our efficiency in servicing existing areas.

DEDICATED AREAS

A total of 87 areas comprising 211 659 hectares have now been gazetted. This is made up of 39 ecological areas (76 241 hectares), 14 forest sanctuaries (16 287 hectares), 12 specifically dedicated areas (7368 hectares) and 21 recreation areas (111 763 hectares).

Additions this year furthered the reservation of indigenous flora and fauna for their scientific value, with the gazetting of another 14 998 hectares. The Scientific Co-ordinating Committee visited the Northland/Auckland region, the Kaimanawa State Forest Park and Canterbury, and has recommended a further 15 ecological areas, totalling approximately 25 000 hectares.

The Omihi Historical Area (0.06 hectares), preserving Maori rock shelters, was also gazetted, and two recreation areas in Berwick and Mount Thomas State Forests provided access to another 546 hectares of exotic forest. The Mount Bruce Native Bird Management Area, of 55 hectares, was reserved to aid the management, researching and breeding of native bird species.

Ministerial approval in principle was granted to dedicate another 16 areas comprising approximately 26 300 hectares.

A series of publications on the ecological districts and areas is well advanced with the northern West Coast region being the first to be covered.

WILD ANIMAL CONTROL

A few years ago forest managers would not have considered the present low levels of most wild animal populations to be possible—the exception being goats in a few places. The helicopter, as a means of either shooting or transporting deer, chamois, and thar carcasses, or of capturing live animals to stock deer farms, has provided a versatility that allows rapid changes to control requirements to be effected. So effective has been the reduction in animal numbers that many operations are now only marginally profitable. At the same time safari or hunting guide services are charging and receiving high prices for their services; deer farmers are expecting rewarding export prices for venison killed and processed on deer slaughter premises; and possum farmers hopefully will look forward to good prices for skins from ranching and "finishing" wild trapped possums. The whole spectrum of commercial and recreational interests, centred on wild animals, faces rapidly changing circumstances. Wild animals will probably never again be considered solely as pests as they once were, now that there is both an increasing monetary value in most species and the means available to harvest and control populations efficiently and economically.

Some progress has been made in the establishment of Recreational Hunting Areas, (RHAs) with gazetting of Lake Sumner, North Pureora, Waiotapu, North-west Nelson and Wakatipu. Unfortunately, there has been much misunderstanding amongst the hunting fraternity, about the functions of the National Recreational Hunting Advisory Committee (NRHAC) and the administration of RHAs. Publication of the conditions for the use of RHAs does not appear to have reassured sport hunters that neither the Forest Service nor the NRHAC have any wish to control recreational hunters any more than at present. The NRHAC is being re-constituted and this should enable more public involvement in planning and administration of RHAs.

As a follow-up to the study of recreational hunting undertaken in Lake Sumner State Forest Park, a similar study is now in progress centred on Kaimanawa and Kaweka State Forest Parks. These parks contain the only significant herds of sika deer in New Zealand, and for this reason Recreational Hunting Area status has been proposed for part of the area.

Deer farming, under the 1979 notification simplifying procedures allowing farmers to establish themselves, has worked well. The number of notifications has now slackened appreciably, although prices for antler velvet and live deer have firmed at higher levels than was thought likely earlier in the year. Establishment of a strong overseas market for farmed venison could lead to further expansion of deer farming. Foundation stock for new deer farms is becoming more difficult to obtain from the depleted wild herds, and farm-bred deer should therefore retain their present value.

For the past two years the Forest Service has been able to substantially reduce possum control operations as part of the Ministry of Agriculture and Fisheries' bovine tuberculosis eradication scheme. This has allowed staff the opportunity to review priorities for wild animal control work and to carry out vegetation, wild animal condition and trend surveys in critical areas such as Urewera National Park and Kaimanawa and Kaweka State

Forest Parks. A survey of goat distribution by the Protection Forestry Branch of the Forest Research Institute will result in trials of new methods of goat control to find the most effective and least costly control measures. Throughout the North Island especially, goats have had a particularly damaging effect on indigenous forests. A similar survey to assess management problems and research needs for wallaby control is to be undertaken next year.

So that control over the numbers of helicopters working can be regulated to ensure continuation of a stable industry, and to maintain a balance between commercial and recreational hunting, Government has introduced the Wild Animal Control Amendment Bill. This Bill has clauses which provide for more stringent law enforcement measures mainly affecting the commercial hunter. This should be welcomed by the recreational hunter, the deer farmer, and all responsible elements of the game industry.

Commercial and recreational hunting have continued to be the main means of wild animal control. The reduction in deer, chamois, and thar numbers has generated fierce competition among commercial hunters for the more productive areas and increased law enforcement activity has been required to investigate complaints of poaching trespass.

5. COMMERCIAL OPERATIONS

REDEVELOPMENT OF MILLS

Conical

The major project undertaken during the year was the installation of a new planer which will increase the production and range of dressed and gauged timbers for both domestic and export markets. Late in the year a start was made on foundation preparations for a dehumidifier which, when commissioned, will considerably increase the mill's timber drying capacity.

Waipa

New equipment was installed to improve the efficiency of mill operations. This included a new top arbor edger in the small log mill which considerably increased mill flexibility as well as producing accurately edged timber.

The oldest treatment plant was converted from using CCA (multisalt preservatives) to AAC (alkyl ammonium) preservatives to diversify the range of treatments offered and to economise treatment costs.

In order to meet stringent environmental requirements a covered storage and drainage pad area was built at the new treatment plant. This plant is now the most up to date of its type in New Zealand.

Construction work commenced late in the year on preparations for the installation of the new high-speed narrow lumber gauger. This also has necessitated major modifications to the existing planer infeed system.

During the Christmas closedown, extensive repair work was carried out on two of the boilers in order to maintain their steam generating efficiency, until the new boilers are built.

Preparations are also well in hand for the construction of two new high temperature kilns, a conditioning chamber and a mechanised timber

filletting installation. These investments are part of the overall investment programme to meet the steady growth in demand for dry timber on the domestic and export markets.

PRODUCTION AND SALES

Production for the year from both sawmills totalled 215 989 m^3. Total sales reached a level of 209 591 m^3 which was a slight increase on the previous year despite a downturn in volume of export sales of 20 percent compared with 1980. The world markets for sawn timber products were influenced greatly by reduced levels of house building, in such major user markets as United States and Japan and by the consequent surplus, particularly on building timbers such as spruce, pine, and fir which were marketed extensively by North American producers in Australia. This situation prevailed throughout the year, despite the fact that many sawmills in North America either closed or were on reduced production. Nevertheless, a strong trading position in all of the traditional markets continued and new market opportunities overseas have been explored, in particular, the prospects of timber trading in the Middle East.

Prices for timber products overseas tended to decline during the year for a number of high volume lines, but this was compensated by expansion of trade in added-value processed and manufactured products. Domestic market trading was comparatively buoyant.

BONUS SCHEME

The bonus scheme at Waipa has continued to work well with calculated bonuses exceeding ceiling in most months of the year. Investigations as to the feasibility of introducing a bonus scheme at Conical Hill Sawmill are proceeding.

PROFIT AND APPROPRIATIONS

Tax paid profit of $5,845,812 was a new record, being 5.2 percent above the $5,552,319 earned in 1980. Turnover of $43,877,061 was 12.7 percent higher than the previous year. Profit to sales ratio was 13.3 percent. The profit for the year was achieved after paying $2,952,885 ($2,118,237 in 1980) in bonuses to staff and workmen at Waipa Sawmill, $361,803 ($640,699) in interest, providing $1,269,107 ($1,071,400) for depreciation and $2,286,985 ($1,941,407) for payment of income tax.

The year's result allows the division to continue the 18 percent dividend paid in 1980 while retaining profits to fund future capital developments at the mills.

Profits will be appropriated as follows:

Tax paid profits	...	$5,845,812
Dividend at 18 percent	...	$1,048,822
Retained profit	...	$4,796,990

Detailed accounts for year ended 31 December 1981 are given in appendix 8.

6. PRODUCTION AND TRADE

PRODUCTION

Because of the date of publication of this report, the latest actual production figures are for the year ended 31 March 1981.

Total Wood Production

The total removal of roundwood for the year ended 31 March 1981 is estimated at 10.2 million m^3, a 3 percent increase from the previous year.

Sawn Timber Production

Total sawn timber production for the year ended 31 March 1981 was 2 182 000 m^3 compared with 2 010 000 m^3 in the previous year, a 9 percent increase.

The production of indigenous sawn timber continued to fall, decreasing by 9 percent to 178 000 m^3.

Exotic sawn timber production increased by 10 percent to 2 004 000 m^3.

Pulp and Paper

Production of mechanical and chemical pulps for paper and paperboard manufacture increased by 84 000 tonnes from the previous year, with 1 206 000 tonnes being recorded for the year ended 31 March 1981.

Total paper and paperboard production increased by 50 000 tonnes to 724 000 tonnes. Of this, newsprint production increased by 4000 tonnes to 323 000 tonnes, and other paper and paperboard increased by 46 000 tonnes to 401 000 tonnes.

Panel Products

Particleboard production increased during the year ended 31 March 1981 by 9000 m^3 to 156 000 m^3 and fibreboard production increased by 14 000 m^3 to 129 000 m^3. Both veneer and plywood production also increased, veneer from 76 000 m^3 to 87 000 m^3 and plywood from 54 000 m^3 to 60 000 m^3.

TRADE

The latest provisional statistics for trade in forest products are for the year ended 31 December 1981 for both imports and exports.

Total exports continued to increase, reaching a value of $550 million. Australia and Japan were the major export markets, accounting for about 46 percent and 24 percent of forestry exports respectively.

Exports of Paper and Pulp

Total paper and paperboard exports increased by 13 000 tonnes to 336 000 tonnes for the year ended 31 December 1981. Of this, newsprint exports decreased by 7000 tonnes to 234 000 tonnes while other paper and paperboard increased by 22 000 tonnes to 102 000 tonnes. The total value of paper and paperboard exports increased by $40 million to $175 million.

The value of pulp exports increased to $164 million for the year ended December 1981, and the volume increased by 39 000 tonnes to 514 000 tonnes.

Export of Logs

A decrease of 45 percent to 559 000 m^3 from the previous year was recorded in the volume of log exports. Value decreased by 40 percent to $35 million.

It is Forest Service policy to favour domestic wood processing. Although the volume of wood available from State exotic forests will remain reasonably static during the current decade it is nevertheless important to maintain a viable level of exports to retain overseas markets as increased volumes become available in the 1990s. Japan is New Zealand's major customer, although Korea and China have been important alternative markets. Thinnings and secondary species currently comprise almost 70 percent of the logs exported by the Forest Service.

Exports of Woodchips

Woodchip exports decreased 13 percent to 202 000 bone dry units (approximately 505 000 m^3 of solid wood). This represented a value of $21 million, a 13 percent increase on the previous year.

Imports of Forest Products

During the year ended 31 December 1981 the total c.i.f. value of imports increased to $117 million. This represented a rise of 18 percent over the previous year. Log imports decreased from 4200 m^3 to 2900 m^3, the value increasing from $1,494,000 to $2,274,000. Sawn timber imports increased from 25 000 m^3 ($10 million) to 32 000 m^3 ($13 million); pulp imports decreased from 8800 tonnes ($6 million) to 6200 tonnes ($4 million); and paper and paperboard decreased from 44 000 tonnes ($62 million) to 40 000 tonnes ($72 million). The value of imports of other forest products rose from $20 million to $25 million.

MAJOR STATE EXOTIC SALES

Nelson State Forests—In October 1981 the Government approved the sale of 2.4 million cubic metres of logs from State forests in Nelson Conservancy to CSR-Baigent Forest Industries Ltd. for a 15-year term commencing in 1983. The company proposed to construct an integrated sawmill/mechanical pulp mill complex at Eves Valley. In subsequent developments the company decided not to proceed with the venture and the future of the State resource is presently under consideration.

The smaller part of the Nelson sale, some 400 000 cubic metres of pruned logs, was awarded to an existing West Coast industry, Aorangi Forest Industries Ltd. This wood will be used to produce plywood for domestic use and for export to Australia and South-East Asia. The sale to Aorangi ensures that the best quality pruned logs from the State's resources will be used for high-grade end uses such as veneer and ply-manufacture.

Aupouri—This sale of first thinnings from Aupouri Forest was advertised in early 1981 with the result that 50 000 cubic metres have been allocated annually for a period of four years, with the right of renewal for a further four years, to Northern Pulp Ltd. Thinning is to start in April 1982 with the logs being used initially to produce chips, for export through the port of Opua. Later the thinnings could form part of the raw material for a mechanical pulp mill which Northern Pulp Ltd. plan to build in Northland.

Lake Taupo—Last October a major sale of radiata pine thinnings from Lake Taupo Forest was awarded to New Zealand Forest Products Ltd. This is a 10-year sale of up to 98 000 cubic metres a year. The wood will primarily be used for processing into pulp and paper at the Kinleith mill,

and for fencing material requirements. Major beneficiaries will be the Maori owners from whom the Forest Service leases the land.

Ngaumu—Ngaumu State Forest in the Wairarapa has now reached the stage where it can provide a substantial supply of wood. However, access to parts of the forest is difficult and there is some concern also as to whether harvesting operations can be maintained throughout the winter. While these matters are investigated the supply of wood is being limited to 30 000 cubic metres annually through to 1985. This will be offered in lots of a minimum size of 500 cubic metres. The maximum period of any sale is to be one year and the minimum three months. The first sale was advertised last year and twelve prospective purchasers submitted tenders for supplies; five were successful.

The prices offered reflected the keen demand for wood from well tended forests and, in particular, the strong market for clear grades of timber from pruned logs. Allocation of supplies was such that a very large proportion of the resource was to be processed in the Wairarapa. A second offering early in 1982 confirmed the market acceptability of pruned material with prices firming on those originally submitted.

PRICE CONTROL

Following detailed investigations the Government removed, with effect from 12 March 1982, price control from New Zealand-grown exotic sawn timbers and certain timber services. This action followed a public inquiry held by the Commerce Commission into the need for the continuation of price control on these items. The Forest Service has consistently supported the removal of price control from sawn timber because its original rationale to influence the price of houses was no longer relevant. It was seen as an artificial and unnecessary constraint.

7. RESEARCH AND DEVELOPMENT

RESEARCH

The report of the Forest Research Institute for 1981, published separately, deals fully with the year's research programme.

WOOD USE

End Use Survey—The survey of the use of timber and wood-based products in residential construction mentioned in previous reports was completed during the year and a summary of findings presented.

A nationwide end-use survey of timber suppliers (sawmillers and merchants) and users (e.g., furniture, joinery manufacturers) was completed. The survey:

(i) identifies and quantifies the end of exotic, native and imported sawn timber, and

(ii) quantitatively describes the pattern of use of sawn timber relative to that of wood-based panel products in manufacturing.

Survey of World Markets for Wooden Poles—The debate on managing forest areas specifically for pole production has been going on for some time. It is recognised that decisions should be based on the best available market information. Accordingly, a survey of potential markets was carried out, in North and South America, Australia, and the Pacific, South East Asia, West Asia and the Middle and Far East, with the assistance of the New

Zealand trade commissioners. The resulting information was made available to a workshop on roundwood late in March.

Standards—The department continues to be involved in the formulation and revision of new standards relating to timber and wood-based products and their use.

The code of practice for timber design and an amended edition of the code of practice for light timber frame buildings not requiring specific design became available during the year. The code of practice for specifying timber and wood-based products for use in building is currently under revision. There is a steady number of international standards in wood products coming forward from ISO (International Standards Association) for consideration for adoption in New Zealand.

8. OTHER ACTIVITIES

ENGINEERING

Sawmills

Updating of machinery at the Waipa mill is continuing. It is hoped that tenders for the initial replacement items of boiler and generator plant will be called shortly.

Plant and Vehicles

Maintenance costs have been high due to the necessity of having to retain items of plant which cannot be replaced, because of the high cost.

Technical Assistance

Assistance to countries of the south west Pacific has been given on plant, vehicles and sawmilling machinery.

Technical advice has also been given to the Agricultural Pests Destruction Council and to the Department of Justice.

Telecommunications

Conversion to single sideband high frequency as required by the Post Office for radios and land mobile equipment is progressing and should be completed later this year.

Land mobile radio communication in forests is provided by a very high frequency radio network using hill-top repeaters. This was established in the high VHF band as an Amplitude Modulated (AM) system. However, in recent years the Post Office has accepted the use of Frequency Modulation (FM) in this band and, with the availability of local design and suppliers, Forest Service is implementing a progressive change to FM on an area basis as existing AM equipment reaches the end of its useful life.

Following successful evaluation of a prototype in Nelson, six new remote weather stations are being established, four in Nelson and two in Westland. These will enable up-to-date weather readings to be relayed to conservancy headquarters over the radio system. Further installations are planned.

Results of the trials have confirmed the value of a high accuracy helicopter navigation system for aerial topdressing. The use of the system for all Forest Service topdressing in the area is continuing and has also been adopted by many private forest owners.

TIMBER INSPECTION AND QUARANTINE

The total sawn timber exports for the 11 months ending November 1981 decreased by 20 percent over the same period in the previous year to a total of 454 280 m^3.

This total was made up as follows:

To Australia ...	...167 526 m^3	decrease of 3.3%
To Japan ...	...260 860 m^3	decrease of 20.6%
To Pacific Islands	... 11 544 m^3	decrease of 40.4%
To United Arab Republic...	61 m^3	decrease of 99.2%
To to all other countries	... 24 289 m^3	decrease of 52.0%
	454 280 m^3	20%

Log exports showed a decrease of 47.2percent compared with the previous 11 months period. A total of 507 512 m^3 were exported mainly to Japan.

A big fall-off of both logs and sawn timber to Japan is apparent. Wood rotting fungi is still the main concern in log exports, but the aftermath of the fire at Hira Forest in Nelson has resulted in an increase in the population of *Arophalus ferus*, an insect which is capable of causing considerable damage to standing timber. Since December the incidence of this insect has resulted in fumigation of export shipments of logs from Nelson.

There has been a small decrease in the containers trade and a marked swing away from the main container ports to the secondary ports, and as a result timber inspector's offices have been opened in Timaru and New Plymouth.

Imported roundwood (5040 cubic metres) increased by 68 percent over the same period of the previous year and sawn timber (24 946 cubic metres) also showed an increase (10.6 percent).

Pests in Australian turpentine piles were found during the year. Piles fumigated in Australia are often found to be infested with live insects on arrival at New Zealand ports. As a result several shipments of Australian piles have been refumigated. The policy of allowing the entry to turpentine piles with bark attached has since been changed after consultation with the New Zealand Harbour Authorities. It is now generally agreed that the bark does not improve the durability of the piles in service.

QUARANTINE REVIEW

The committee set up last year to review legislation and inspection procedures, relating to forest produce import quarantine requirements undertaken by this department and the Ministry of Agriculture and Fisheries, has completed its task. The review committee found no critical areas of dissatisfaction in New Zealand's quarantine regulations which protect forests and forest products, or in their implementation. Their effectiveness is demonstrated by the fact that the majority of the 93 overseas forest timber insects established in New Zealand became established before plant quarantine was formally organised. However, the committee has recommended a number of minor amendments to the Forest Produce Import/Export Regulations and a limited few broad strategic changes to provide an ongoing mechanism for monitoring day-to-day technical improvements to the quarantine system.

TIMBER PRESERVATION AUTHORITY

The Timber Preservation Authority continued its close surveillance of the timber preservation industry, to ensure a high standard of timber preservation in New Zealand. In order to save costs the authority abandoned its scheduled quarterly meetings in September and December for one meeting in November. The consequent savings allowed the authority to visit treatment plants in the Hawkes Bay area. Rotorua was also visited during the year.

Twenty-two new plant approvals were given during the year with only two plants cancelling registration, making a total of 316 plants now registered. Extension of approval has been given to 17 plants to allow new preservatives, processes or commodities. One plant has its terms of approval varied to exclude the treatment of a specific commodity because of inability to meet the authority's requirements. The variation was later revoked when the plant demonstrated that the requirements could be met.

A comprehensive review of the Timber Preservation Regulations has been undertaken with the assistance of the department's legal officers. It is expected that these will be put before Goverment during the coming year.

New branding regulations for treated timber have been prepared by the authority's branding committee. These have been approved by the authority and will be implemented shortly.

New Zealand's success in the timber preservation field has been recognised overseas, and during the year Government officials from Malaysia, New Caledonia and Sweden visited this country to study systems and legislation.

The use of alkyl ammonium compounds for timber treatment has continued to grow and approvals have been extended to several plants throughout the country for the use of this new preservative. It is expected that further experimentation will open wider avenues for its use in New Zealand.

The Timber Preservation Authority is currently investigating steam evacuation as a method of pre-seasoning produce for treatment, and has approved commercial trials which show promise of success.

Approval subject to strict control requirements has been extended to five portable treatment plants, mainly in the South Island. The Authority has long been wary of such approvals because of the difficulty of control, but is confident that satisfactory control can now be exercised at local levels.

A high incidence of sludging with CCA preservatives is under study at the Forest Research Institute in an effort to isolate the problem.

PUBLIC RELATIONS

A further range of publications was produced during the year on subjects extending from popular forest walks to technical information. A major booklet on forestry statistics was produced.

The annual advertising campaign for fire prevention was undertaken, and the department participated with other organisations on campaigns for Conservation Week and Arbor Day. Other advertising was carried out mainly on a supportive basis to organisations with which the department is associated.

Open days were held and those at Nelson and Southland proved highly successful at showing practical demonstrations of forestry operations to the public. The Nelson "Forest Expo" was a joint effort by the

department and local organisations and attracted over 10 000 visitors in two days. During the summer, guided walks and nature interpretation programmes were again arranged in a number of forests resulting in much favourable comment for the department.

Special efforts were made with news media coverage of the department's activities.

OVERSEAS AID PROJECTS

During the year 26 Forest Service officers served overseas, mainly in the Pacific, on aid programmes administered by the Ministry of Foreign Affairs. This year saw the end of the Forest Service's involvement in projects in India but assistance to two projects in the Philippines continued.

In June the ministry was able to take advantage of the presence in the Pacific of a team from New Zealand Aerial Mapping Ltd. to have forestry project areas in Western Samoa, Tonga, and Niue photographed.

Western Samoa

The Principal Forestry Adviser currently leads a team of three. Of these, three will return during the year, and one additional officer is due to take up duties shortly. In October the Government approved the expenditure of $3.17 million as New Zealand's contribution to the forestry development project jointly funded with the Asian Development Bank. Recruitment of staff for the project and the construction of offices and advisers' houses are under way. A timber utilisation officer completed a series of utilisation studies on the major plantation species.

Fiji

With the return of two officers during the year there are currently four advisers attached to the Fiji Pine Commission. During the year the commission signed an agreement with BP South West Pacific Ltd. to proceed with a full feasibility study of a joint-venture utilisation company. The proposed development comprises a sawmill and an integrated industry using small logs and sawmill residues, utilising Caribbean pine from part of the Commission's plantation on Viti Levu. New Zealand provided advice to the Commission in their negotiations with the potential joint venture partner. Three officers of the Commission came to New Zealand for training.

Two advisers made short-term visits to the Fiji Ministry of Forests to provide advice on timber seasoning and timber design.

Tonga

Forest Service assistance to the Tongan forestry effort in areas such as reforestation, local timber utilisation, coconut stem utilisation, has been maintained. As well, an officer from New Zealand is seconded as chief forestry officer. On 3 March Hurricane Isaac struck the three main islands of the Tonga group, causing widespread damage to tree crops and a major task has been organising salvage operations.

Papua New Guinea

The foreman mechanic at Finschhafen completed his assignment during the year while the instructor at the Timber Industry Training

Centre is in the final year of his term. Advice was provided during the year on the construction of buildings at the TITC for a re-manufacturing plant and a treatment plant and on the provision of equipment for these plants. The Assistant Director-General visited Papua New Guinea in September to assist with a review of forestry legislation for the purpose of defining forestry policy.

Niue

One adviser is stationed at Niue as forestry/sawmill superintendent. He is charged with overseeing forestry operations, the establishment of a sawmill, and training of local staff.

Vanuatu

The Deputy Director-General visited Vanuatu in February to review directions in New Zealand's aid to that country. Advice is currently being given on the development of industrial plantations and the provision of a preservation plant.

Philippines

The three-man team at the ASEAN Afforestation Project in Tarlac province was replaced on the completion of its assignments during the year. The planting of *Pinus caribbaea,* other pines and some hardwoods has continued. The project is seen as a success by the Philippines forestry authorities and those in the other ASEAN countries, and continues to attract interest within the region.

The two New Zealand advisers at the Philippines Coconut Authority Research Centre at Zamboanga are in the final year of their assignment. Advice continues to be given from New Zealand on milling equipment. Assistance was also given on preservation trials and sawing trials.

India

Forest Service involvement at the Fire Training Centre in Kerala State continued until March when the second of the two advisers returned to New Zealand. Until this time the centre continued to provide training for officers in Kerala and neighbouring states. Two forest rangers from Kerala came to New Zealand in early March to begin two months' training in fire fighting and control burning.

The Forest Service adviser at the nursery and establishment project in Himachal Pradesh State completed his assignment during the year and was not replaced. New Zealand continued to provide advice on nursery and planting techniques until the project was concluded at the end of March.

Indonesia

The Deputy Director-General visited Indonesia in October to investigate possible forestry options with a view to assistance under the Bilateral Aid Programme.

Malaysia

Two FAO Fellowship students from Sarawak received 12 weeks training in forest engineering.

9. ADMINISTRATION

TRAINING

Training Schemes

The department has adopted the recommendations of an internal working party to phase out the woodsman training scheme which was originally designed to provide skilled forest labour, but has now outlived this need. A quote from the working party's introduction to their report is fully endorsed—"Woodsman training was founded 30 years ago with high ideals and these have continued throughout its existence. Furthermore, it has produced young men who have been a credit to the Forest Service, the forest industry, and the New Zealand community generally."

The initial woodsman school was opened at Golden Downs Forest in 1951 and over the intervening years the number of schools increased to five. Schools at Aupouri, Berwick, and Kaingaroa Forests closed at the end of 1981, while the remaining two schools at Ashley and Golden Downs Forests will close at the end of 1982.

It is planned to introduce the Logging and Forest Industry Training Board's basic forest skills training programme to all forests.

Forestry Training

During 1981 a complete reappraisal of the department's methods of training and developing staff has been undertaken and very comprehensive reports are being studied by the department.

Thirteen Forest Service trainees, two students from industry and two private students, successfully completed their study for the New Zealand Certificate in Forestry at the end of 1981.

Seven forester trainees graduated from the University of Canterbury at the end of 1981. In addition, the first two assistant rangers, who had earlier passed the NZCF, also graduated with their B.For.Sc. degree in 1981.

Training for Industry

Thirty-nine more apprentices attended the Timber Industry Training Centre in 1981 than in 1980. The Centre is planning a substantial re-development of its sawmill in 1982, with the aim of keeping abreast with modern sawmilling techniques.

A Senior Trade Training Officer at the Centre was awarded the Timber Industry Advanced Training Award and this allowed him to spend five weeks studying the sawmills and timber industry on the north west coast of America and Canada.

Overseas countries continue to recognise the value of training at the Centre and trainees in 1981 came from Australia, Bhutan, Indonesia, Kiribati, Malaysia, Philippines, Tanzania, Thailand, and Tonga.

STAFF

Overseas visits

The Director-General, the Director of Forest Planning and the Chief Economist attended a meeting and seminar of the Joint Consultative Committee on Forest Industries in Canberra, Australia. The Deputy Director-General attended a meeting of the Asia-Pacific Forestry Commission in Fiji.

Marketing and trade negotiations on the sale of sawn timber were undertaken in Australia by the Director, Commercial Division, and by the Assistant Director in Australia, Japan, and Saudi Arabia. Other sales officers negotiated sales of sawn timber in the Peoples Republic of China, the Pacific Islands, and Australia.

The Director of Marketing and a Senior Marketing Officer visited Japan, South Korea, and the Peoples Republic of China to review and renegotiate price and volume specifications for sale of export logs.

A further 37 officers undertook various overseas visits for purposes such as scientific investigations, study tours, exchange visits, and representing the Forest Service at various international meetings.

APPENDIX 1

Area of State Forest Land at 31 March 1982

(Area in hectares)

Conservancy (1)	*Permanent State Forest*		*Total Area of State Forest Land* (4)	*State Forest Land as Percentage of Total Land Area of Conservancy* (5)
	Ordinary (2)	*National Endowment* (3)		
Auckland	378 571	39 069	417 640	11.6
Rotorua	419 206	131 503	550 709	17.2
Wellington	573 208	16 499	589 707	13.2
Nelson...	628 321	189 856	818 177	37.4
Westland	808 968	320 218	1 129 186	52.0
Canterbury	295 478	1 476	296 954	6.6
Southland	443 527	31 079	474 606	7.4
Total	3 547 279	729 700	4 276 979	16.1

Reservations and Withdrawals

	Hectares
Land placed under State reservation	29 912
Areas withdrawn from reservation comprised—	
For settlement	1 043
For national parks	..
For roads	38
For scenic reserves	..
Other	552

APPENDIX 2

New Area Planted in State Exotic Forests—by species

(Area in hectares)

Year Ended 31 March (1)	*Radiata Pine* (2)	*Douglas Fir* (3)	*Eucalypts* (4)	*Other* (5)	*Total* (6)
1982	18 290	1 434	638	1 221	21 583
1981	14 381	699	690	916	16 686
1980	16 242	907	407	733	18 289
1979	18 871	596	452	1 765	21 684
1978	18 021	631	567	675	19 894
1977	20 793	719	396	370	22 278
1976	20 150	653	309	553	21 665
1975	19 515	795	515	204	21 029
1974	19 673	794	111	381	20 959
1973	15 792	1 107	114	346	17 359
1972	11 795	880	33	313	13 021
1971	12 674	1 435	85	544	14 738
1970	11 746	2 166	144	731	14 787
1969	10 240	2 391	80	780	13 491
1968	7 188	2 008	81	384	9 661
1967	6 159	1 664	70	695	8 588
1966	6 115	1 233	69	898	8 315
1965	5 947	1 571	82	1 075	8 675
1964	5 075	745	41	1 582	7 443

APPENDIX 3

Table 1—Establishment and Clear Felling in State Exotic Forests

(a) Totals for Conservancies as at 31 March 1982

(Area in hectares)

Conservancy (1)	*Operations During Year*						
	New Area Planted (2)	*Former Productive Areas Re-stocked by Planting* (3)	*Area Clear Felled with Yield* (4)	*Other Changes in Stocked Area* (5)	*Stocked Area* (6)	*Areas Awaiting Restocking* (7)	*Total Productive Area* (8)
Auckland	3 424	1 049	680	−557	74 583	1 017	75 600
Rotorua	7 461	5 794	5 044	−464	212 064	5 297	217 361
Wellington	2 706	624	439	−102	61 979	1 076	63 055
Nelson	2 803	234	325	−102	51 945	835	52 780
Westland	1 640	98	36	−415	18 023	93	18 116
Canterbury	729	1 013	438	−123	30 097	3 743	33 840
Southland	2 820	282	331	−261	56 701	328	57 029
Total	21 583	9 094	7 293	−2 024	505 392	12 389	517 781

APPENDIX 3—*continued*

Table 2—Establishment and Clear Felling in State Exotic Forests

(b) Totals for both Islands and New Zealand

(Area in hectares)

Region Year Ended 31 March (1)	Operations During Year: New Area Planted (2)	Former Productive Areas Re-stocked by Planting (3)	Area Clear Felled with Yield (4)	Other Changes in Stocked Area (5)	Stocked Area (6)	Areas Awaiting Restocking (7)	Total Productive Area (8)
Total North Island—							
1982	13 591	7 467	6 163	−1 123	348 626	7 390	356 016
1981	10 189	8 078	6 967	−11	334 854	9 676	344 530
1980	10 949	7 182	6 895	−88	323 565	9 870	333 435
1979	12 133	8 434	5 746	−1 264	312 417	6 063	318 480
1978	12 806	6 517	6 144	+81	298 860	8 244	307 104
Total South Island—							
1982	7 992	1 627	1 130	−901	156 766	4 999	161 765
1981	6 497	1 341	1 231	−750	149 178	5 044	154 222
1980	7 340	1 305	1 325	−693	143 321	5 212	148 533
1979	9 551	1 621	923	+402	136 694	5 599	142 293
1978	7 088	1 447	2 039	−92	126 044	6 157	132 201
Total New Zealand—							
1982	21 583	9 094	7 293	−2 024	505 392	12 389	517 781
1981	16 686	9 419	8 198	−761	484 032	14 720	498 752
1980	18 289	8 487	8 220	−781	466 886	15 082	481 968
1979	21 684	10 054	6 669	−862	449 111	11 662	460 773
1978	19 894	7 964	8 183	−11	424 904	14 401	439 305

Table 3a—Establishment and Clear Felling in State Exotic Forests as at 31 March 1982

By Forests

(Area in hectares)

Conservancy and Forest (1)	Stocked Area as at 31.3.81 (2)	Operations During Year: New Area Planted (3)	Former Productive Areas Re-stocked by Planting (4)	Area Clear Felled with Yield (5)	Other Changes in Stocked Area (6)	Stocked Area as at 31.3.82 (7)	Area Awaiting Restocking (8)	Total Productive Area (9)
Auckland—								
Athenree	857	..	10	17	..	850	17	867
Aupouri	13 281	1 230	39	2	−43	14 505	..	14 505
Coromandel ...	1 469	..	23	23	−37	1 432	19	1 451
Glenbervie ...	5 660	268	48	52	−7	5 917	44	5 961
Great Barrier ...	34	..	..	..	..	34	..	34
Mangaokewa ...	94	160	2	..	−2	254	..	254
Mangawhai ...	1 041	..	..	..	+3	1 044	..	1 044
Maramarua ...	4 589	..	110	136	−64	4 499	107	4 606
Omahuta ...	428	6	..	1	−1	432	..	432
Otangaroa ...	1 222	329	..	..	+1	1 552	..	1 552
Pirongia South ...	..	..	..	..	+158	158	..	158
Pouto	432	176	..	..	..	608	..	608
Puketi	34	..	..	4	..	30	77	107
Pureora	6 067	21	26	21	−121	5 972	..	5 972
Riverhead ...	3 989	..	316	100	−6	4 199	133	4 332
Russell	34	..	..	..	..	34	..	34
Tairua	8 500	190	169	120	−405	8 334	247	8 581
Tainui-Kawhia ...	833	5	..	..	−3	835	..	835
Tawarau	992	..	..	..	..	992	..	992
Waihou	548	64	..	..	−10	602	..	602
Waipoua	3 007	67	102	55	+7	3 128	87	3 215
Waitangi	2 071	20	42	21	−16	2 096	42	2 138
Waiuku	1 017	8	55	46	..	1 034	196	1 230
Whangapoua ...	6 268	819	..	..	..	7 087	..	7 087
Woodhill	8 880	61	107	82	−11	8 955	48	9 003
Total	71 347	3 424	1 049	680	−557	74 583	1 017	75 600

APPENDIX 3—*continued*

Table 3b—Establishment and Clear Felling in State Exotic Forests as at 31 March 1982

By Forests

(Area in hectares)

Conservancy and Forest (1)	*Stocked Area as at 31.3.81* (2)	*Operations During Year*			*Other Changes in Stocked Area* (6)	*Stocked Area as at 31.3.82* (7)	*Area Awaiting Restocking* (8)	*Total Productive Area* (9)
		New Area Planted (3)	*Former Productive Areas Re-stocked by Planting* (4)	*Area Clear Felled with Yield* (5)				
Rotorua—								
Haparangi ...	115	..	105	12	..	208	21	229
Horohoro ...	1 336	48	..	..	..	1 384	..	1 384
Horotaka ...	110	8	..	..	..	118	..	118
Kaimai-Mamaku ...	41	..	..	..	..	41	..	41
Kaingaroa ...	113 416	..	4 837	4 270	−66	113 917	3 391	117 308
Lake Taupo ...	17 924	918	..	..	−175	18 667	..	18 667
Mangatu	11 036	..	8	..	−24	11 020	..	11 020
Manutahi ...	167	..	..	..	..	167	..	167
Marotiri	133	..	..	..	+1	134	..	134
Matahina ...	..	1 017	..	..	..	1 017	..	1 017
Patunamu ...	3 085	..	..	..	−4	3 081	..	3 081
Poutu	18	..	..	..	..	18	..	18
Rotoaira	5 602	949	..	..	+3	6 554	..	6 554
Rotoehu	6 965	187	33	140	−10	7 035	212	7 247
Ruatoria	9 790	119	1	..	−133	9 777	..	9 777
Te Manawa ...	503	639	..	..	..	1 142	..	1 142
Te Whaiti Nui-a-toi	925	133	..	..	−9	1 049	..	1 049
Tokomaru ...	1 248	1 239	..	..	..	2 487	..	2 487
Tokorangi ...	..	226	..	..	..	226	..	226
Waimihia ...	17 710	860	747	556	..	18 761	1 542	20 303
Waioeka	43	..	..	..	..	43	..	43
Waiohau	..	641	..	..	..	641	..	641
Waipunga ...	611	..	..	..	−73	538	..	538
Wairakei	656	..	..	..	+40	696	23	719
Whaka	4 989	..	63	66	−35	4 951	108	5 059
Wharerata ...	4 111	472	..	..	+18	4 601	..	4 601
Whirinaki ...	3 783	5	..	..	+3	3 791	..	3 791
Total	204 317	7 461	5 794	5 044	−464	212 064	5 297	217 361

APPENDIX 3—*continued*

Table 3c—Establishment and Clear Felling in State Exotic Forests as at 31 March 1982

By Forests

(Area in hectares)

Conservancy and Forest (1)	*Stocked Area as at 31.3.81* (2)	*Operations During Year*			*Other Changes in Stocked Area* (6)	*Stocked Area as at 31.3.82* (7)	*Area Awaiting Restocking* (8)	*Total Productive Area* (9)
		New Area Planted (3)	*Former Productive Areas Re-stocked by Planting* (4)	*Area Clear Felled with Yield* (5)				
Wellington—								
Awahohonu	4 625	464	..	..	−2	5 091	..	5 091
Erua	1 642	..	..	..	..	1 642	54	1 696
Esk	3 112	130	55	61	..	3 236	84	3 320
Gwavas	5 598	62	59	75	..	5 644	47	5 691
Karioi	8 398	2	338	172	−77	8 489	522	9 011
Kaweka	5 166	215	..	..	..	5 381	..	5 381
Lismore	3 277	156	..	..	..	3 433	..	3 433
Mohaka	8 789	943	..	2	+51	9 781	24	9 805
Motuiti	11	..	..	..	..	11	..	11
Mt. Bruce ...	13	..	..	..	..	13	..	13
Ngaumu	8 444	352	79	45	−2	8 828	38	8 866
Rimutaka ...	188	61	..	..	..	249	..	249
Ruahine	133	..	..	..	..	133	..	133
Santoft	3 261	7	..	4	−5	3 259	40	3 299
Tangimoana ...	256	3	..	2	..	257	11	268
Tangoio	340	..	..	..	..	340	..	340
Tararua	550	21	..	..	..	571	..	571
Te Wera	1 829	138	..	4	..	1 963	..	1 963
Tongariro ...	914	..	..	33	−71	810	236	1 046
Utiku	25	..	..	..	..	25	..	25
Waitarere ...	1 576	..	93	41	..	1 628	20	1 648
Woodstock ...	1 043	152	..	..	..	1 195	..	1 195
Total	59 190	2 706	624	439	−102	61 979	1 076	63 055

APPENDIX 3—*continued*

Table 3d—Establishment and Clear Felling in State Exotic Forests as at 31 March 1982

By Forests

(Area in hectares)

Conservancy and Forest (1)	*Stocked Area as at 31.3.81* (2)	*Operations During Year*			*Other Changes in Stocked Area* (6)	*Stocked Area as at 31.3.82* (7)	*Area Awaiting Restocking* (8)	*Total Productive Area* (9)
		New Area Planted (3)	*Former Productive Areas Re-stocked by Planting* (4)	*Area Clear Felled with Yield* (5)				
Nelson—								
Big Bush	..	30	..	..	..	30	..	30
Golden Bay* ...	460	16	..	..	−219	257	..	257
Golden Downs ...	29 354	439	173	270	+18	29 714	785	30 499
Hira	2 566	633	..	..	+63	3 262	..	3 262
Matakitaki ...	..	5	..	..	..	5	..	5
Motueka	2 615	162	..	..	+16	2 793	..	2 793
N.W.N.S.F.P. ...	993	210	..	..	..	1 203	..	1 203
Queen Charlotte ...	530	277	..	..	+4	811	..	811
Rai-Whangamoa ...	4 818	361	61	33	+116	3 301	50	3 351
Tutaki	204	..	..	..	..	204	..	204
Waimea	2 701	..	..	..	+2	2 703	..	2 703
Wairau	4 789	670	..	..	−23	5 482	..	5 482
Wangapeka ...	305	..	..	..	−125	180	..	180
Total	49 335	2 803	234	325	−102	51 945	835	52 780

*Golden Bay Forest—previously Pakawau and Takaka Forests.

APPENDIX 3—*continued*

Table 3e—Establishment and Clear Felling in State Exotic Forests as at 31 March 1982

By Forests

(Area in hectares)

Conservancy and Forest (1)	*Stocked Area as at 31.3.81* (2)	*Operations During Year*			*Other Changes in Stocked Area* (6)	*Stocked Area as at 31.3.82* (7)	*Area Awaiting Restocking* (8)	*Total Productive Area* (9)
		New Area Planted (3)	*Former Productive Areas Re-stocked by Planting* (4)	*Area Clear Felled with Yield* (5)				
Westland—								
Charleston ...	143	..	..	..	..	143	..	143
Fair Down ...	236	..	..	..	..	236	..	236
Granville... ...	291	..	..	..	−3	288	..	288
Hochstetter ...	2 339	154	..	..	−19	2 494	..	2 494
Hohonu	481	..	27	..	−75	433	36	469
Hukawai... ...	87	..	..	..	..	87	..	87
Ianthe	211	..	..	..	..	211	..	211
Inangahua East ...	41	168	..	..	+29	238	..	238
Inangahua West ...	152	..	..	..	..	152	..	152
Kaniere	1 068	149	19	..	−46	1 190	7	1 197
Mahinapua ...	944	143	23	..	−2	1 108	..	1 108
Maruia	10	..	..	..	..	10	..	10
Mawhera ...	3 299	..	..	..	−89	3 210	..	3 210
Mikonui	166	25	..	..	−1	190	..	190
Mokihinui ...	123	247	2	..	−2	370	..	370
Nemona	1 625	153	..	10	+24	1 792	24	1 816
Ohikanui ...	5	..	..	..	..	5	..	5
Omoto	1 367	12	4	..	−93	1 290	..	1 290
Paparoa	845	363	..	..	..	1 208	..	1 208
Tawhai ...	986	19	11	26	−13	977	26	1 003
Waimea	1 982	133	12	..	−125	2 002	..	2 002
Waitahu	287	74	..	..	..	361	..	361
Wanganui ...	26	..	..	..	..	26	..	26
Total	16 736	1 640	98	36	−415	18 023	93	18 116

Table 3f—Establishment and Clear Felling in State Exotic Forests as at 31 March 1982

By Forests

(Area in hectares)

Conservancy and Forest (1)	*Stocked Area as at 31.3.81* (2)	*Operations During Year*			*Other Changes in Stocked Area* (6)	*Stocked Area as at 31.3.82* (7)	*Area Awaiting Restocking* (8)	*Total Productive Area* (9)
		New Area Planted (3)	*Former Productive Areas Re-stocked by Planting* (4)	*Area Clear Felled with Yield* (5)				
Canterbury—								
Ashley	7 528	158	261	39	−33	7 875	151	8 026
Balmoral... ...	6 107	..	395	180	..	6 322	2 185	8 507
Eyrewell	3 422	..	222	29	−3	3 612	945	6 557
Geraldine ...	2 361	22	8	..	−18	2 573	115	2 688
Hanmer	3 439	59	127	190	..	3 435	347	3 782
Island Hills ...	189	..	..	..	..	189	..	189
Mt. Thomas ...	1 144	90	..	..	−60	1 174	..	1 174
Omihi	1 204	..	..	..	..	1 204	..	1 204
Oxford	332	..	..	..	−17	315	..	315
Waimate... ...	990	400	..	..	+8	1 398	..	1 398
Total	28 916	729	1 013	438	−123	30 097	3 743	33 840

APPENDIX 3—*continued*

Table 3g—Establishment and Clear Felling in State Exotic Forests as at 31 March 1982

By Forests

(Area in hectares)

Conservancy and Forest (1)	Operations During Year								
	Stocked Area as at 31.3.81 (2)	New Area Planted (3)	Former Productive Areas Re-stocked by Planting (4)	Area Clear Felled with Yield (5)	Other Changes in Stocked Area (6)	Stocked Area as at 31.3.82 (7)	Area Awaiting Restocking (8)	Total Productive Area (9)
Southland—								
Beaumont ...	2 313	..	41	55	..	2 299	55	2 354
Berwick	11 278	485	28	43	−65	11 683	55	11 738
Blackmount ...	1 129	440	..	..	..	1 569	..	1 569
Catlins*	842	35	..	..	..	877	..	877
Dean	342	230	..	..	..	572	..	572
Eyre	..	110	..	..	..	110	..	110
Glen Dhu ...	1 098	524	..	..	..	1 622	..	1 622
Herbert	1 845	128	22	..	+11	2 006	27	2 033
Hinahina* ...	410	..	..	..	+4	414	..	414
Hokonui	2 215	..	27	35	..	2 207	32	2 239
Longwood ...	5 344	113	38	38	+24	5 481	41	5 522
Maclennan ...	..	13	..	..	+46	59	..	59
McCrosties† ...	..	..	..	..	+1 217	1 217	..	1 217
Naseby	2 056	53	..	32	+41	2 118	17	2 135
Otago Coast ...	8 283	583	..	..	−1 423	7 443	..	7 443
Rankleburn ...	4 091	..	18	14	..	4 095	..	4 095
Rowallan ...	2 015	..	..	..	..	2 015	..	2 015
Silverpeaks ...	1 068	81	..	..	−1	1 148	..	1 148
Slopedown ...	4 113	25	..	..	−110	4 028	..	4 028
Taringatura ...	1 367	..	..	..	..	1 367	..	1 367
Tautuku	64	..	..	..	−5	59	..	59
Waikoata* ...	299	..	..	..	..	299	..	299
Waikawa* ...	12	..	..	..	..	12	..	12
West Tapanui ...	4 007	..	108	114	..	4 001	101	4 102
Total	54 191	2 820	282	331	−261	56 701	328	57 029

*Catlins, Hinahina, Tautuku, Waikawa, and Waikoata Forests previously shown as Owaka.
†McCrosties Forest previously part of Otago Coast Forest.

APPENDIX 4

Total Removals from State Forests for Year Ended 31 March 1982

(Volume in thousands cubic metres)

Conservancy (1)	Indigenous			Exotic			Grand Total (8)
	Logs (2)	Smallwood (3)	Total (4)	Logs (5)	Smallwood (6)	Total (7)	
Auckland ...	4	1	5	412	45	457	462
Rotorua	44	..	44	3 539	100	3 640	3 684
Wellington ...	..	..	..	230	31	261	261
Nelson	11	..	11	176	24	200	211
Westland ...	180	1	181	15	..	15	196
Canterbury ...	..	..	..	175	12	187	187
Southland ...	17	..	17	198	22	220	237
Total—1981–82 ...	256	2	258	4 745	234	4 980	5 238
1980–81 ...	281	1	282	4 913	267	5 180	5 462
1979–80 ...	272	2	274	4 846	222	5 068	5 342

NOTES—(1) This table shows all roundwood removed from State forests under licences, permits, and log sale agreements.
(2) Roundwood for particleboard is included with logs.

APPENDIX 5

Total Wood Removals from State Indigenous Forests by Method of Sale for the Year Ended 31 March 1982

(Volume in cubic metres: value in $(000))

Conservancy (1)	Logs		Smallwood		Total	
	Volume (2)	Value (3)	Volume (4)	Value (5)	Volume (6)	Value (7)
			(a) Sales of Standing Timber			
Auckland	1 001	64	1 151	6	2 152	70
Rotorua	20 683	27	217	..	20 900	27
Wellington	..	..	2	..	2	..
Nelson...	7 066	71	..	..	7 066	71
Westland	129 023	1 674	627	11	129 650	1 685
Canterbury	..	..	..	..	..	..
Southland	14 535	203	5	..	14 540	203
Total—1981–82	172 308	2 039	2 002	17	174 310	2 056
1980–81	182 191	1 571	1 104	11	183 295	1 582
1979–80* ...	198 425	1 445	2 016	10	200 441	1 455
			(b) Sales of Logs			
Auckland	3 382	160	..	..	3 382	160
Rotorua	23 550	1 189	47	..	23 597	1 189
Wellington	..	..	..	..	..	..
Nelson...	3 512	58	..	..	3 512	58
Westland	50 775	771	..	..	50 775	771
Canterbury	..	..	..	..	..	..
Southland	1 997	25	..	..	1 997	25
Total—1981–82	83 216	2 203	47	..	83 263	2 203
1980–81* ...	98 524	2 544	..	..	98 524	2 544
1979–80	73 912	1 443	..	..	73 912	1 443

*Revised

NOTES—(1) Logs include sawlogs, pulplogs, and peeler logs.
(2) Values of log sales relate to the value of timber removed and are based on a bush skid or ride price point.

APPENDIX 6

Total Wood Removals from State Exotic Forests by Method of Sale for the Year Ended 31 March 1982

(Volume in cubic metres: value in $(000))

Conservancy (1)	Logs Volume (2)	Logs Value (3)	Smallwood Volume (4)	Smallwood Value (5)	Total Volume (6)	Total Value (7)
			(a) Sales of Standing Timber			
Auckland ...	298 135	3 644	39 884	290	338 019	3 934
Rotorua ...	2 188 436	11 202	88 330	570	2 276 766	11 772
Wellington ...	124 054	1 547	25 801	215	149 855	1 762
Nelson... ...	14 539	63	14 529	54	29 068	117
Westland ...	5 189	62	232	2	5 421	64
Canterbury ...	171 472	1 056	10 320	152	181 792	1 208
Southland ...	74 826	809	16 009	173	90 835	982
Total 1981–82 ...	2 876 651	18 383	195 105	1 456	3 071 756	19 839
1980–81 ...	2 991 611	14 194	222 348	1 275	3 213 959	15 470
1979–80 ...	2 965 061	10 194	194 976	862	3 160 037	11 056
			(b) Sales of Logs			
Auckland ...	113 426	2 954	5 066	164	118 492	3 118
Rotorua ...	1 350 971	23 256	12 141	200	1 363 112	23 457
Wellington ...	106 157	2 166	5 237	94	111 394	2 260
Nelson... ...	161 990	3 653	9 436	224	171 426	3 877
Westland ...	10 201	169	198	4	10 399	173
Canterbury ...	3 539	71	2 021	55	5 560	126
Southland ...	123 154	3 249	5 681	140	128 835	3 389
Total 1981–82 ...	1 869 438	35 518	39 780	881	1 909 218	36 400
1980–81 ...	1 921 646	34 759	44 259	750	1 965 905	35 509
1979–80 ...	1 879 994	31 563	28 359	449	1 908 353	32 012

*Revised.

NOTES—(1) Logs include sawlogs, pulplogs, and peeler logs.
(2) Values of log sales relate to the value of timber removed, and are based on a bush skid or ride price.

APPENDIX 7

Production of Rough Sawn Timber for Year Ended 31 March 1981

(a) By Species

(Volume in cubic metres)

Conservancy (1)	Indigenous							Exotic				All Species			
	Rimu and Miro (2)	Matai (3)	Totara (4)	Kahikatea (5)	Kauri (6)	Tawa (7)	Beech (8)	Minor Species (9)	Exotic Pines (10)	Douglas Fir (11)	Eucalyptus (12)	Minor Species (13)	Indigenous (14)	Exotic (15)	Total (16)	Sawmills Registered (17)
Auckland	5 845	388	1 016	1 395	2 453	6 210	23	828	263 555	219	1 350	4 936	18 358	270 060	288 418	101
Rotorua	16 911	923	197	999	3	6 717	..	103	938 693	130 455	302	14 848	25 853	1 084 298	1 110 151	38
Wellington	7 311	1 353	754	1 391	..	1 373	4	4	267 303	2 011	631	7 855	12 190	277 800	289 990	73
Nelson	6 821	25	31	180	..	..	453	..	69 639	18 650	32	431	7 510	88 752	96 262	40
Westland	76 296	139	50	6 444	..	15	4 752	183	4 612	..	..	..	87 879	4 612	92 491	29
Canterbury... ...	..	..	1	..	..	..	..	..	143 495	6 184	137	4 358	1	154 174	154 175	52
Southland	8 787	57	308	103	..	..	14 048	7	110 763	10 506	19	6 261	23 310	127 549	150 859	52
North Island—																
1980–81	30 067	2 664	1 967	3 985	2 456	14 300	27	935	1 469 551	132 685	2 283	27 639	56 401	1 632 158	1 688 559	212
1979–80	35 007	2 444	1 479	3 959	4 376	15 310	8	890	1 343 151	127 403	1 498	29 150	63 473	1 501 202	1 564 675	209
1978–79	60 476	2 616	1 990	4 667	1 924	14 829	33	1 081	1 252 324	97 917	2 370	37 137	87 616	1 389 748	1 477 364	203
South Island																
1980–81	91 904	221	390	6 727	.	15	19 253	190	328 509	35 340	188	11 050	118 700	375 087	493 787	173
1979–80	102 029	198	616	5 645	..	10	23 053	49	263 743	36 051	272	12 152	131 600	314 218	445 818	172
1978–79	92 005	103	188	8 992	..	11	18 683	301	226 514	33 645	234	7 441	120 283	267 834	388 117	170
New Zealand																
1980–81	121 971	2 885	2 357	10 712	2 456	14 315	19 280	1 125	1 798 060	168 025	2 471	38 689	175 101	2 007 245	2 182 346	385
1979–80	137 036	2 642	2 095	9 604	4 376	15 320	23 061	939	1 608 894	163 454	1 770	41 302	195 073	1 815 420	2 010 493	381
1978–79	152 481	2 719	2 178	13 659	1 924	14 840	18 716	1 382	1 478 838	131 562	2 604	44 578	207 899	1 657 582	1 865 481	373

NOTE: (1) This table is based of statistics collected by the New Zealand Forest Service in connection with the annual registration of sawmills
(2) Indigenous "Minor Species" (column 9) for 1980–81 include taraire, 500 m^3, tanekaha, 30 m^3, hinau, 113 m^3, rewarewa, 232 m^3, puriri, 11 m^3, other and unspecified, 239 m^3.
(3) Exotic "Minor Species" (column 13) for 1980–81 include—larch, 18 140 m^3, macrocarpa, 16 343 m^3, poplar, 357 m^3, redwood, 2 871 m^3, other and unspecified, 978 m^3.

APPENDIX 7—*continued*

Production of Rough Sawn Timber for the Year Ended 31 March 1981

(b) By Land Ownership

(Volume in cubic metres)

Conservancy (1)	Indigenous					Exotic				Grand Total (11)
	State Forest Land (2)	Unoccupied Crown Land (3)	Maori Land (4)	Private Land and Crown Leasehold (5)	Total (6)	State Forest Land (7)	Local Authority Land (8)	Company and Private Land (9)	Total (10)	
Auckland	3 962	..	1 399	12 997	18 358	197 740	4 263	68 057	270 060	288 418
Rotorua	16 459	..	5 192	4 202	25 853	612 773	4 481	467 044	1 084 298	1 110 151
Wellington	2 425	..	3 750	6 015	12 190	161 086	7 912	108 802	277 800	289 990
Nelson	3 376	..	..	4 134	7 510	51 153	3	37 596	88 752	96 262
Westland	74 898	..	..	12 981	87 879	3 504	226	882	4 612	92 491
Canterbury	..	..	..	1	1	59 921	24 419	69 834	154 174	154 175
Southland	8 434	..	13 487	1 389	23 310	84 867	10 741	31 941	127 549	150 859
North Island										
1980–81	22 846	..	10 341	23 214	56 401	971 599	16 656	643 903	1 632 158	1 688 559
1979–80	27 031	61	12 006	24 375	63 473	878 157	8 984	614 061	1 501 202	1 564 675
1978–79	46 556	210	13 200	27 650	87 616	752 845	12 718	624 185	1 389 748	1 477 364
South Island										
1980–81	86 708	..	13 487	18 505	118 700	199 445	35 389	140 253	375 087	493 787
1979–80	108 587	..	12 078	10 935	131 600	148 784	39 578	125 856	314 218	445 818
1978–79	94 411	314	7 226	18 332	120 283	143 235	30 907	93 692	267 834	388 117
New Zealand										
1980–81	109 554	..	23 828	41 719	175 101	1 171 044	52 045	784 156	2 007 245	2 182 346
1979–80	135 618	61	24 084	35 310	195 073	1 026 941	48 562	739 917	1 815 420	2 010 493
1978–79	140 967	524	20 426	45 982	207 899	896 080	43 625	717 877	1 657 582	1 865 481

*Amended

APPENDIX 8

The Consolidated Financial Statements of the New Zealand Forest Service for the Year Ended 31 December 1981

These financial statements are prepared under the authority of section 16 of the Forest Act 1949 in accordance with the statements of accounting policies on pages 41 to 43.

Changes in Accounting Policies

Changes in forest accounting policies have been initiated to present a more acceptable and meaningful financial statement of the results and financial position of the forest production activities.

The changes involve a departure from categorising exotic forests into producing and developing forests. Under this policy production forest expenses and income were charged to the operating statement from which an operating surplus or deficit was derived. Developing forest expenses and income were capitalised.

The new policy corrects the more serious anomalies of the old policy. The method follows the general accounting principle of measuring an operating surplus or deficit by matching accumulated costs of the forest crop cut against revenues in the year in which the revenue is earned. At the same time it carries forward a fair historical cost of the standing forest crops. (Refer to "Statements of Accounting Policies" on pages 41 to 43 for details.)

These changes in policies have been made with the knowledge that further accounting developments are necessary and in progress to improve cost measurement procedures, particularly for costs that cannot be adequately charged directly to programmes and activities.

The significant effects of the changes in accounting policies are shown as:

(a) a major increase in the capitalised cost of the growing exotic forest crop. At the beginning of the year the recorded cost under the old policy for exotic forest was $209 million. Costs now accumulated since inception under the new policy increased this amount to $374 million; and

(b) a major change to operating results for the exotic forest growing programme. The new policies show an operating surplus of $25.2 million instead of an operating deficit of $4.7 million. The amount of the change arises from:

  (i) the capitalising of the year's forest management expenditure of $31.6 million for forests in production, that were previously charged to operating;

  (ii) the charging to operating of the year's net income of utilisation of $4.6 million for developing forests, that were previously capitalised; and

  (iii) the apportionment to operating of $6.3 million for the cost of the year's cut from the accumulated direct and indirect costs of $374 million for growing the present standing crops.

Valuation of forests

A departmental exotic forest crop estimated current value is shown as a note on page 48. This allows the estimated future realisable surpluses that will arise from the exotic forest crop to be better understood. In the interim this current value has not been introduced into the accounts, as further developments regarding forest valuation practices and procedures are under consideration.

Consolidation

The separate accounts that have been previously published are now consolidated. However, separate disclosure of the financial statements of the Commercial Division's sawmilling activities continues. The Commercial Division's notional capital structure, and the Division's responsibilities to pay interest on notional borrowed funds, income tax on profits, and a dividend, continue. These responsibilities do not apply to the rest of the department.

Best endeavours have been taken to satisfy the requirements of all relevant Statements of Standard Accounting Practice issued by the New Zealand Society of Accountants.

New Zealand Forest Service Consolidated Operating Statement For the Year Ended 31 December 1981

	Note	1981	*1980*
Income Earning		$(000)	*$(000)*
Turnover—sawmilling		43,877	*38,939*
Turnover—forestry		58,909	*58,593*
Total turnover		102,786	*97,532*
Less operating expenditures		72,530*	*72,278**
Operating surplus	2	30,256	*25,254*
Non-income Earning			
Operating expenditures		57,152	*44,636*
Less miscellaneous recoveries		18,196†	*14,757†*
Net operating expenditures	2	38,956	*29,879*

*Includes income tax payable to the Inland Revenue Department of $2.287 million ($1.942 million last year) on sawmilling profits of $8.035 million ($7.543 million last year) shown in Note 8. Total costs of operating the Commercial Division are incorporated in sawmilling activities.

†Includes interest charged to the Commercial Division on notional term loans and bank overdraft of $362,000 ($641,000 last year).

New Zealand Forest Service Consolidated Statement of Financial Position at 31 December 1981

Funds employed	Note		1981 $(000)	*1980 $(000)*
Funds—sawmilling	8 (b)		27,131	*22,144*
—forestry	5 (a)		630,647	*517,449*
	5		657,778	*539,593*
Employment of funds				
Fixed assets—sawmilling	8 (c) (9)		14,361	12,239
—forestry	6		606,039	*502,960*
			620,400	*515,199*
Investments	7		5,655	*4,483*
Current assets				
Debtors		20,326		*16,416*
Stocks and stores		22,504		*16,739*
Deposits...		306		*340*
Total current assets			43,136	33,495
			669,191	*553,177*
Less current liabilities				
Creditors		11,413		
Total current liabilities			11,413	*13,584*
			657,778	*539,593*

G. M. O'NEILL, Director-General of Forests.
D. J. LEAHY, Chief Finance Officer.

The notes, referred to above and that follow on pages 41 to 52, form part of and are to be read in conjunction with these financial statements.

New Zealand Forest Service Consolidated Statement of Changes in Financial Position for Year Ended 31 December 1981

	Note	1981 $(000)
Funds provided by:		
Government		126,885
Surplus on income earning activities	2	30,256
Total		157,141
Funds applied to:		
Increase fixed assets		105,201
Increase investments		1,172
Net change in working capital (refer below) ...		11,812
Net expenditures—non-income earning activities ...	2	38,956
Total		157,141

Statement of Changes in Working Capital

	1981 $(000)
Current assets	
Increase—	
Debtors	3,910
Stocks and stores	5,765
	9,675
Decrease—	
Deposits	34
	9,641
Current liabilities	
Decrease—	
Creditors	2,171
Net change in working capital	11,812

No comparative 1980 figures available due to changes in accounting policies.

Notes to the Consolidated Financial Statements

Note 1: *Statement of Accounting Policies*

Accounting Convention

The general principles of historical cost accounting have been applied in the preparation of these financial statements, except that land not originally purchased by the Forest Service has been given a notional value, and land used by the Commercial Division has been valued at Government valuation.

Basis of Consolidation

The consolidated financial statements have been prepared on the pooling of interests method and include the results, assets and liabilities of the Forestry and Commercial Divisions after eliminating all significant intra-divisional and mill transactions.

Valuation of Assets

Exotic Forests: Forests are valued on the unit cost method. Under this method all the costs of establishing, protecting and maintaining forest crops, except the cost of the land, are capitalised and carried forward as appropriate units until the trees are cut. When the trees are cut costs capitalised in earlier years are charged to the operating statement in the proportion that the area cut bears to the total area of the forest at the beginning of the year in which cutting takes place. In addition appropriate costs of protecting and maintaining forest crops that are cut during the year are charged to the operating statement; the remaining costs are capitalised.

This policy differs from the one applied in previous years. The effects of the changes are shown in Note 5.

Indigenous Forests: No cost is shown for indigenous forest crops. As the present management policy is designed to perpetuate these forests as both natural forests and managed stands, costs incurred on these forests during the year are charged to the operating statement.

Land: Land in the Commercial Division is valued at the latest Government valuation. Forest land purchased is valued at its original cost and that received from the Government at no cost has been valued at $1.24 per hectare.

Other fixed assets: All other fixed assets are valued at cost less accumulated depreciation. Depreciation on the significant fixed assets is calculated as follows:

Sawmill machinery	15 percent diminishing value
Buildings	1–2½ percent straight line
Bridges	2½ percent straight line
Fire equipment	10 percent diminishing value
Mobile plant, vehicles and radio installations	20 percent diminishing value
Power saws	50 percent diminishing value

It was impractical to change depreciation calculations from the diminishing value to the straight line method, which is now current practice.

Forestry Encouragement Loans: These are shown at amounts advanced less repayments. Under the Forest Encouragement Loans Regulations 1967, about half the amount outstanding will not be repaid but no provision is made for these irrecoverable amounts.

Debtors: These are shown at expected realisable value.

Stocks and Stores, except sawmills: Drums, partially manufactured stores and forest produce are valued at the lower of cost and net realisable value.

Stores are usually valued at their last recorded purchase price but some are valued at the lower of cost or net realisable value. No adjustment is made for the unrealised profit on valuing stores at last recorded price.

Stocks and Stores—Sawmills: Sawmill stocks and stores, other than wood chips, are valued at the lower of cost and net realisable value as follows:

Log stocks—cost landed at gantry.
Sawn timber and manufactured timber products—cost of production including all direct and indirect costs of operating the mills and the expenses of the Commercial Division's Head Office in Rotorua.
Roundwood—cost of production.
Retail timber stocks—wholesale purchase price.
Stores—cost into stores.
Wood chips—at market price at point of sale.

Notional Capital

The Commercial Division's sawmilling accounts conform to the accounts of a company, except that a notional capital is introduced as all the net funds employed are dealt with through the public account. This approach permits the division's results to be compared with those of other sawmilling companies.

Notional capital was fixed at 1 January 1979 as:

Bank overdraft and current liabilities	25 percent
Term finance	25 percent
Accumulated profits and reserves	25 percent
Share capital—$5,826,791	25 percent
	100 percent

Thereafter (a) annual retained profits and reserves are credited to notional accumulated profits and reserves, and (b) annual changes in Government advances are apportioned between bank overdraft and term loans, after portion of term loan maturing during the year is repaid.

Repairs and Maintenance

Repairs, maintenance and replacements are charged as expenses. Costs of modifying and improving assets are capitalised.

Income Tax

Only the Commercial Division (sawmilling) is subject to income tax. Tax on sawmilling profits is provided at company rates after taking advantage of all allowances and incentives.

Foreign Currencies

Foreign currency transactions are converted to New Zealand currency at the rate of exchange ruling on the date of the transaction.

Provision for Doubtful Debts

Bad debts are charged to the operating statement. Doubtful debts are provided for in the light of past experience.

Changes in Accounting Policies

Except for the changes in accounting policies for forests, there have been no material changes in accounting policies since last year.

Note 2: *Operating Results by Programmes*

Income Earning	Note	Forestry Exotic Production 1981	Forestry Exotic Production 1980	Forestry Indigenous Production 1981	Forestry Indigenous Production 1980	Sawmilling† 1981	Sawmilling† 1980	Consolidated* 1981	Consolidated* 1980
		$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
Turnover	3	61,447	60,907	4,330	4,324	43,877	38,939	102,786	97,532
Less operating expenditure	4	36,201	37,615	5,166	7,914	38,031	33,387	72,530	72,278
Operating surplus/(deficit)		25,246	23,292	(836)	(3,590)	5,846	5,552	30,256	25,254

Non-income Earning	Note	Forestry Services 1981	Forestry Services 1980	Forestry Research 1981	Forestry Research 1980	Administration and Support‡ 1981	Administration and Support‡ 1980	Consolidated 1981	Consolidated 1980
		$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
Operating expenditures	4	10,987	7,824	15,335	12,542	30,830	24,270	57,152	44,636
Less miscellaneous recoveries		747	974	–	–	17,449	13,783	18,196	14,757
Net operating cost		10,240	6,850	15,335	12,542	13,381	10,487	38,956	29,879

*After eliminating all significant inter-divisional transactions. Forestry exotic production turnover on consolidation has been reduced by an amount of $6.868 million (last year $6.638 million), which represents supplies of logs to sawmilling.
†Refer Commercial Division Accounts for full details on page 48.
‡The net operating cost may include significant costs more correctly chargeable to operating or capital for activities other than sawmilling. Further accounting developments will resolve these problems in future years.

Note 3: *Turnover*

	Exotic Production		Indigenous Production	
	1981 $(000)	1980 $(000)	1981 $(000)	1980 $(000)
Wood removals				
—sales of logs	41,451	42,896	2,471	2,764
—sales of standing timber	19,518	15,746	1,818	1,529
Total wood removals	60,969	58,642	4,289	4,293
Other revenues	478	2,265	41	31
Total turnover	61,447	60,907	4,330	4,324

Note 4: *Operating Expenditures*

	Exotic Production		Indigenous Production	
	1981 $(000)	1980 $(000)	1981 $(000)	1980 $(000)
Growing—exotics†	6,272	5,669	—	—
Harvesting/Marketing/Administration	29,929	31,946	2,182	2,138
Forest management indigenous	—	—	2,984	5,776
Total operating expenditures	36,201	37,615	5,166	7,914

	Forestry Services	
	1981 $(000)	1980 $(000)
Establishment, tending, and protection in amenity protection forests*	2,589	503
Fire prevention and administration of fire districts*	416	255
Assistance to public and private forestry	2,245	1,953
Timber inspection and termite control	530	428
Wild animal control*	2,573	2,090
Work for other departments	1,126	1,166
Staff training*	1,508	1,429
	10,987	7,824

*Includes direct expenditure on non-productive areas only. Similar costs in production forests are charged directly to those activities.
†Cost of exotic forest crops cut during the year (refer Note 6).

Note 5: *Funds Employed*

		1981 $(000)
Fund employed at 1 January 1981—sawmilling	22,144	
—forestry	352,717†	
—total		374,861
Prior period adjustment—changes in accounting policies		164,732*
Adjusted opening balance at 1 January 1981		539,593
From Government		126,885
Tax paid profit—sawmilling	5,846	
Operating surplus—forestry	24,410	
Operating surplus—total	30,256	
Net operating cost—non-income earning	(38,956)	
		(8,700)
Funds employed at 31 December 1981		657,778

*The prior period adjustment relates to the changes in accounting policies for forests described in the Statement of Accounting Policies on page 42. By adopting this new policy, exotic forests show an operating surplus of $25,246,000. Under the old policy they would have shown an operating deficit of $4,709,000.

†Consists of the following end of previous year's balances brought forward:

	$(000)
Advances from Government	395,203
less Deficit—General administration account	29,879
	365,324
less Accumulated deficit—production forests	12,607
	352,717

Note 5 (a): *Forestry* (excluding sawmilling (Commercial Division))

Statement of financial position at 31 December 1981

Funds employed	Note		1981 $(000)	*1980 $(000)*
Funds			630,647	*517,449*
Employment of funds				
Fixed assets	6		606,039	*502,960*
Investments	7		5,655	*4,483*
Current assets				
Debtors		17,222		*13,370*
Stocks and stores		7,768		*5,456*
Deposits		306		*340*
Total current assets			25,296	*19,166*
			636,990	*526,609*
Less current liabilities				
Creditors		6,343		*9,160*
Total current liabilities			6,343	*9,160*
			630,647	*517,449*

Note 6: *Fixed Assets—Forestry: 1980*

	Land $(000)	Forest Crops-exotic $(000)	Roads & Bridges $(000)	Buildings $(000)	Plant & Vehicles $(000)	Other Assets $(000)
Cost						
Balance at start of year	18,982	169,579	48,842	31,844	27,779	12,442
Additions/deletions	161	39,705	7,040	4,977	2,360	1,492
Balance at end of year	19,143	209,284	55,882	36,821	30,139	13,934
Depreciation						
Provision at start of year			238	6,847	16,289	466
Provisions for year/Withdrawals			39	593	2,400	103
Provision at end of year			277	7,440	18,689	569
Net balance at end of year	19,143	209,284	55,605	29,381	11,450	13,365

Fixed Assets—Forestry: 1981

	Land $(000)	Forest Crops-exotic $(000)	Roads & Bridges $(000)	Buildings $(000)	Plant & Vehicles $(000)	Other Assets $(000)
Cost						
Balance at start of year ...	19,143	209,284	55,882	36,821	30,139	13,934
Prior period adjustment ...		164,732†				
Restated balance		374,016				
Additions/deletions	1,641	93,554*	8,550	5,010	2,857	1,300
		(6,272)				
Balance at end of year ...	20,784	461,298	64,432	41,831	32,996	15,234
Depreciation						
Provision at start of year ...			277	7,440	18,689	569
Provisions for year/Withdrawals			54	786	2,386	335
Provision at end of year ...			331	8,226	21,075	904
Net balance at end of year ...	20,784	461,298	64,101	33,605	11,921	14,330

*Details shown in Note 6 (a).
†Prior period adjustment—effect of changes in accounting policy for forest crops—exotic from 1 January 1981 are shown in Note 5.

Summary of Fixed Asset Costs—Forestry

	1981 $(000)	*1980 $(000)*
Land	20,784	*19,143*
Forest crops—exotic	461,298	*374,016*
Roads and bridges	64,101	*55,605*
Buildings	33,605	*29,381*
Plant and vehicles	11,921	*11,450*
Other assets	14,330	*13,365*
Total	606,039	*502,960*

Note 6 (a): *Forest crops—exotic additions*

	1981 $(000)	*1980 $(000)*
Establishment	21,923	*15,922*
Tending	21,573	*15,112*
Maintenance, protection, administration ...	50,058	*34,278*
	93,554	*65,312*

Note 6 (b): *Valuation of fixed assets*

Valuations for the following fixed assets have been determined as at 31 December 1981.

Land:

(1) The land values are the total of the latest Government role valuations, plus acquisitions at cost since valuation date. These are $260.9 million (last year $208.5 million).

Forest crops—exotic:

(2) A departmental exotic forest crop current value is assessed at $1,840 million (last year $1,475 million). The valuation policies followed had regard to current prices and costs, markets, commitments, log yields and locations of forests. In addition, broad based forest growth and log quality expectations for the young crops were considered, and the net present value concept, using future expected returns on investment, applied.

Note 7: *Investments*

	1981 $(000)	*1980 $(000)*
Shares in companies	10	*7*
Debentures—Tarawera Forest Ltd.	410	*388*
Loans—forestry encouragement	5,235	*4,088*
	5,655	*4,483*

Note 8: *Commercial Division—Sawmilling*

The Financial Statements of the Commercial Division—Sawmilling for the Year Ended 31 December 1981

(a) Operating Statement

	Notes (c)		1981 $(000)		*1980 $(000)*
Sales			43,877		*38,939*
Less operating costs...	1				
Cost of logs	2	12,013		10,243	
Mill operations	3	18,435		16,351	
Selling and distribution	4	5,294		4,686	
			35,742		*31,280*
Operating Profit			8,135		*7,659*
Less					
Net expenditure on employee accommodation	5		100		*116*
Profit before income tax			8,035		*7,543*
Provision for income tax			2,287		*1,942*
Tax paid profit for year			5,748		*5,601*
Adjustments relating to previous years...	6		99		*(63)*
			5,847		*5,538*
Profit/(Loss) on sale and disposal of assets			(1)		*25*
			5,846		*5,563*
Provision for doubtful debts ...			—		*11*
Tax paid profit			5,846		*5,552*
Less					
Proposed dividend			1,049		*1,049*
Retained profits			4,797		*4,503*

Commercial Division—Sawmilling

(b) Statement of Financial position

Funds Employed	Notes (c)		1981 $(000)		*1980 $(000)*
Government funds			8,974		*8,784*
Accumulated profits			16,317		*11,520*
Represented by the following notional capital apportionment:					
Term finance		3,773		3,583	
Accumulated profits and reserves		15,691		10,894	
Share capital		5,827		5,827	
			25,291		*20,304*
Reserve for fire losses			550		*550*
Reserve for revaluation of land ...	10		1,290		*1,290*
			27,131		*22,144*
Employment of Funds					
Current assets					
Sundry debtors and prepayments ...	7	5,754			*4,660*
Stocks and stores	8 & 11	14,736			*11,283*
			20,490		*15,943*
Fixed assets	9 & 10				
Fixed and mobile plant		7,468			*6,180*
Land and buildings		4,121			*3,900*
Houses and employee accommodation		346			*372*
Property, furniture and fittings ...		210			*188*
Other Installations		2,216			*1,599*
			14,361		*12,239*
			34,851		*28,182*
Less current liabilities					
Current liabilities		6,671			*4,989*
Provision for dividend		1,049			*1,049*
			7,720		*6,038*
			27,131		*22,144*

The notes, referred to above and that follow, form part of and are to be read in conjunction with these accounts.

A. A. B. WEBBY, Director, Commercial Division.

(c) Notes to the Financial Statement of the Commercial Division

(1) Operating Costs—Includes:

	1981 $(000)	1980 $(000)	1979 $(000)
Interest paid	362	641	803
Audit Fees	11	8	7

(2) Cost of Logs—Expenses of logs to mills and other roundwood extracted under contract to delivery point, after adjusting for opening and closing stocks. Average cost of logs at point of purchase for all supplies, both clearfellings and thinnings, are as follows:

	1981 $/m³	1980 $/m³
Waipa		
Purchase of logs on stump	9.26	8.92
Purchase of logs on ride	18.66	16.87
Conical Hill		
Purchase of logs at mill site	24.63	18.25

(3) Mill Operations—Expenses of manufacturing and processing into finished products in mill yard, after adjusting for opening and closing stocks, and including a proportion of mill overhead.

(4) Selling and Distribution—Direct wages and salaries of staff and yard staff involved in preparing finished products for sale, together with all expenses from mill to point of sale.

(5) Net expenditure on Employee Accommodation—Excess of direct outgoings over actual rents, determined by agreement between the SSC and CSSO and the NZTWU.

(6) Adjustments Relating to Previous Years—Includes:

		$(000)
Log Arisings 1980		201
Less		
Adjustment to log price 1979/80	11	
Wages backpay 1980	11	
Salaries backpay 1980	7	
NZR sleepers	73	102
		99

(7) Sundry debtors is the net amount after deducting the following:

	1981 $(000)	1980 $(000)	1979 $(000)
Provision for doubtful debts	125	125	114
Provision for discounts	57	47	20

(8) Stocks and stores—this item comprises:

Log and Timber Stocks...	12,241	9,420	7,652
General Stores	2,495	1,862	1,549

Note: General stores are valued:
Waipa—At latest purchase price.
Conical—At average purchase price.

(9) Fixed assets

	Original Cost		Accumulated Depreciation		Net Balance at end of year	
	1981 $(000)	1980 $(000)	1981 $(000)	1980 $(000)	1981 $(000)	1980 $(000)
Fixed and mobile plant	15,010	12,944	7,542	6,764	7,468	6,180
Land and buildings	5,219	4,898	1,098	998	4,121	3,900
Houses and employee accommodation	807	836	461	464	346	372
Property, furniture and fittings...	400	341	190	153	210	188
Other installations	2,623	1,966	407	367	2,216	1,599
	24,059	20,985	9,698	8,746	14,361	12,239

	1981	1980	1979
Depreciation for the year was	1,269	1,071	964

(10) Reserve for revaluation of land—land revalued to 1.10.76 Government Valuation.

(11) Changes to accounting policy.
Valuation of stores.
Maintenance stores have been valued at latest list price which is a departure from the weighted average method used previously. The financial effect is to increase stores valuation by $49,161. This being 2.4 percent of stores and 0.43 percent of total stocks.

Commercial Division—Sawmilling

(d) Statement of Changes in Financial Position

	1981 $(000)	1980 $(000)	1979 $(000)
Source of Funds:			
Net funds from operations	7,116	6,609	2,384
Proceeds from sales of fixed assets	64	119	36
Increase current liabilities	1,585	2,227	1,124
Increase advances from Government	190	—	—
Increase in reserves	—	108	1,182
Decrease current assets	—	—	774
	8,955	9,063	5,500
These funds were applied in:			
Acquisition of fixed assets	3,456	2,692	2,586
Increase current assets	4,450	2,315	—
Payment of dividend	1,049	874	816
Decrease advances from Government	—	3,182	2,098
	8,955	9,063	5,500
Net Funds from operations:			
Net Profit from Operating Account	5,748	5,601	1,531
Depreciation	1,269	1,071	963
Adjustments Relating to Previous Years	99 *cr*	(63) *dr*	(110) *dr*
	7,116	6,609	2,384

(e) Highlights of Commercial Division—Sawmilling

	1981 $(000)	1980 $(000)	1979 $(000)
Gross Value of production	43,877	38,940	26,484
Production m^3	216,406	219,014	183,391
Total personnel employed	863	877	884
Total remuneration to employees	15,910	13,399	9,860
Tax paid profit	5,846	5,563	1,438
Proposed dividend	1,049	1,049	874
Retained profits	4,797	4,503	564
Percentage of profits retained	82	81	39
Total assets	34,850	28,183	24,687
Working capital	12,769	9,904	8,148
Working funds employed	27,131	22,143	20,714

(f) Statistics of Commercial Division—Sawmilling

		Percent	
	1981	1980	1979
Dividend rate	18	18	15
Number of times covered by profit	5.57	5.30	1.65
Tax paid profit to:			
(a) Shareholders funds	36.81	33.16	11.77
(b) Gross sales	13.32	14.26	5.43
(c) Share capital	100.33	95.29	24.68
(d) Total funds employed	21.54	25.07	6.94
Current assets to: (Ratios)			
(a) Current liabilities	2.6:1	2.6:1	3.5:1
(b) Stock	1.4:1	1.4:1	1.5:1
Average rate of interest paid	10.1	9.5	9.1

Report of the Audit Office

The Audit Office, having been appointed in terms of section 25, Public Finance Act 1977, has audited the financial statements of the New Zealand Forest Service.

The audit was conducted in accordance with generally accepted auditing standards and practices.

In the opinion of the Audit Office, the financial statements appearing on pages 38 to 52 fairly reflect the financial position as at 31 December 1981 and the results of financial operations for the year.

J. T. CHAPMAN, Deputy Controller and Auditor-General.

25 June 1982.

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